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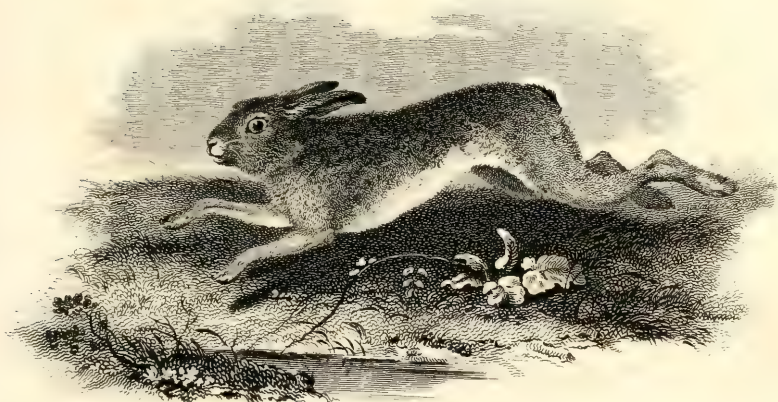
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1848

THE

SPORTSMAN'S CYCLOPEDIA.



The
Sportsman's Cyclopædia.



THE
SPORTSMAN'S
CYCLOPÆDIA;

COMPRISING

A COMPLETE ELUCIDATION OF THE SCIENCE AND PRACTICE

OF

HUNTING, SHOOTING, COURSING,
RACING, FISHING, HAWKING, COCKFIGHTING,

AND OTHER

SPORTS AND PASTIMES OF GREAT BRITAIN.

INTERSPERSED WITH

ENTERTAINING AND ILLUSTRATIVE ANECDOTES.

BY
T. B. JOHNSON. *James
Angelland* *d. 1245*

EMBELLISHED WITH

A PROFUSION OF HIGHLY FINISHED ENGRAVINGS,

AFTER LANDSEER, WARD, COOPER, HANCOCK, AND OTHER EMINENT ARTISTS.

LONDON:

HENRY G. BOHN, YORK STREET, COVENT GARDEN.

1848.

1207

PLATE 1207

PLATE 1207

P R E F A C E.

In ushering the following pages into the world little seems necessary in the way of exordium.—It may be remarked, however, that works professedly of a similar description have appeared before ; but none within the period of the last twenty-seven years ; since which, the improvements in almost every thing which relates to the subjects contained in the following pages have been so numerous and important, that the Chase, and its collateral appendages, may be said to have assumed a very different character. What indeed may have been called "*Sportsmen's Dictionaries*" were publications evidently huddled together by persons whose knowledge of Field Sports was confined to *hearsay*, or what they had gleaned from spurious works which have at different times made their appearance : in consequence, these "*Sportsmen's Dictionaries*" not only abounded in errors, but were so grossly absurd, for the most part, that, so far from imparting amusing and interesting instruction, they excited the contempt and derision of the genuine enlightened Sportsman. Under these circumstances, therefore, the want of a Work like the present appeared evident ; and if it cannot lay claim to unqualified originality, it certainly possesses the advantage of having been put together by a long-experienced and a practical Sportsman—one who has pursued the Chase in all its ramifications from almost childhood to what may be called the afternoon of life :—he has studied the Chase not only as a Sportsman, but as a philosopher and a physiologist ; and in the following pages has endeavoured, in a genuine, character-

istic manner, to present all that can be interesting or useful to the professed Sportsman, and to those who are attached to, or occasionally pursue, the healthful, the invigorating, the highly-fascinating and delightful amusements enumerated in the title page.

At the same time, the author and compiler very frankly acknowledges, that he has freely availed himself of whatever has hitherto appeared in print upon subjects connected with the present publication : this, however, was not a task of very great or extensive labour ; since, comparatively speaking, little has been written upon subjects evidently interesting to the human feelings above all others. The reason is obvious : Sportsmen capable of expressing their opinions upon paper are almost uniformly placed in situations and circumstances where literary exertion is not necessary as a means of existence ; and, being occupied with the fascinating pleasures of the Chase, feel no desire to give their opinions to the world thro' the medium of the press. In consequence, works of this nature have been for the most part, put together by men, who, whatever might be their attainments in other respects, possessed no practical knowledge of Field Sports. These observations are not intended to apply to Veterinary Subjects, upon which many publications have appeared, several of them evidently the productions of acute and enlightened minds ; tho' the " art of healing," as far as relates to horses, must still be considered in its infancy.

Finally, the following pages are intended to form, not merely a book of general reference, a kind of copious index ; but a compendious, interesting, and complete Library of every thing essentially connected with the Sports of the Field.

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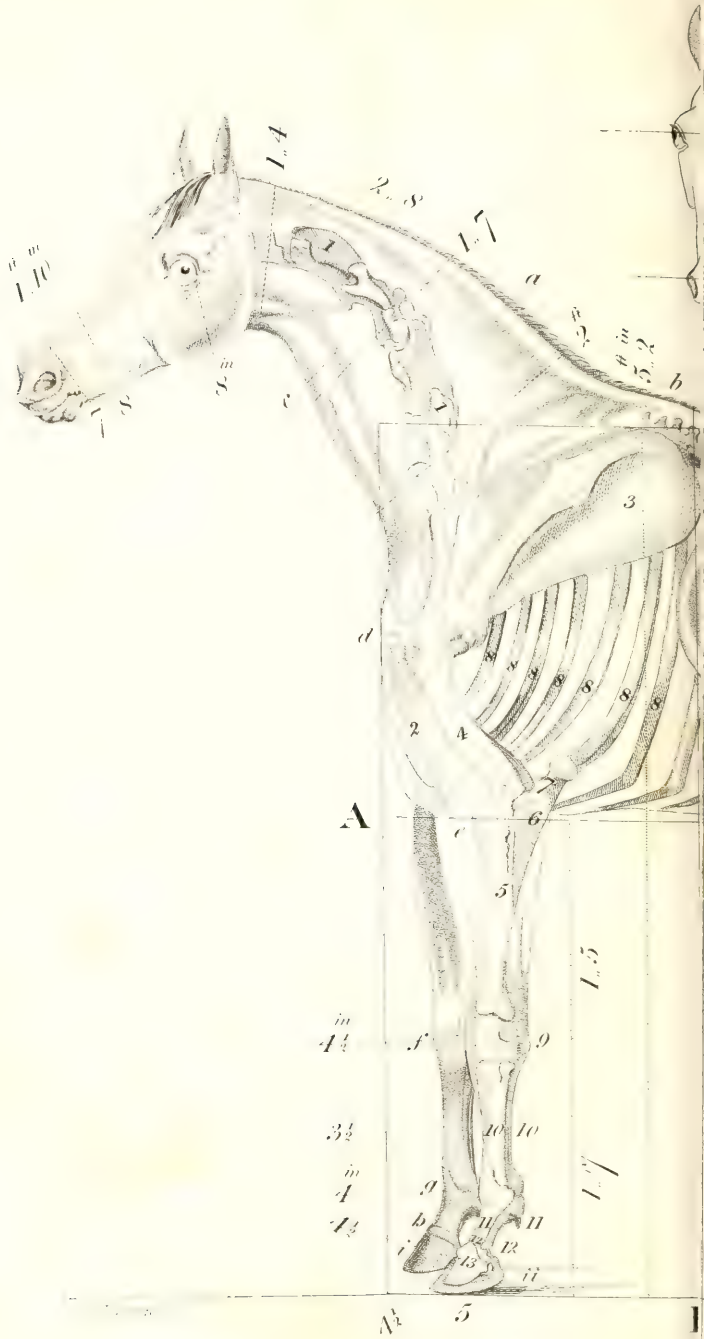
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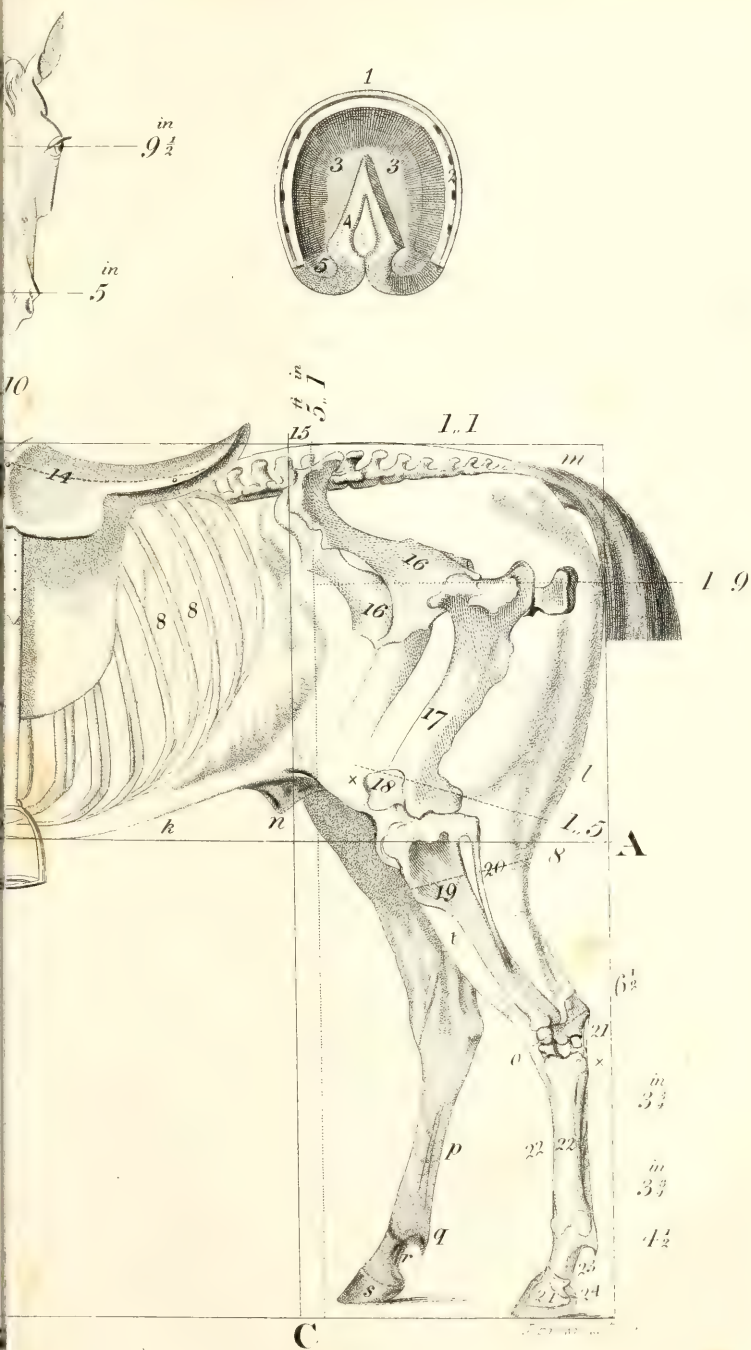
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THE SPORTSMAN'S ENCYCLOPEDIA.

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AARON, bay, was bred by Lord Chedworth, in 1747; he was got by Whitenose, out of Diana, by Whitefoot. In 1751, Aaron won the £50 purse, for four-years-old, at Burford, beating Fearnought, by Second, and nine others. Aaron's running, in 1752, proved unfortunate: in the spring he was beat by Lord Eglintowne's Lightfoot, at Newmarket; at Epsom, in May, he ran second to Lord Onslow's Victorious; in August, at Burford, he was again obliged to yield to Lord Onslow's Victorious. He afterwards became the property of Mr. Rogers; and in May, 1753, he was beat in a give and take plate, at Epsom, by Capt. Vernon's Driver, Aaron, however, winning the first heat. In June, he carried off the Ladies' Plate, at Guildford, beating Lord Onslow's Why-Not; in August, he won a £50 plate, at Hounslow; in September, he beat the Duke of Hamilton's Figure, give and take, at Winchester.

Town Plate of £50, at Epsom, on May 25th, 1754.

Mr. Rogers's bay horse, Aaron,
weight, 8st. 6lb. 2oz. 1 0 1

Mr. Lamego's chesnut horse, Little Driver, by Beaver's Driver,
out of Childers' Mare, weight,
9st. 1lb. 12oz. 2 0 2

The second heat was run so near, that the judge could not determine which had won it, and the third heat he gave to Aaron. This, however, was not fully determined till September following, at which time a paragraph appeared in the London Evening Post, including the affidavit of the judge in this affair.

Isaac Tarratt, of Epsom, in the county of Surrey, linen-draper, maketh oath, and

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sayeth, that, in the month of May last past, he, this deponent, was requested to observe and give his judgment respecting a certain horse-race, run on Epsom Downs, in the said month of May, between a horse, the property of Mr. Aaron Lamego, known by the name of Little Driver, and another horse, the property of Mr. Benjamin Rogers, known by the name of Aaron. And this deponent sayeth, that, according to his, this deponent's strict observance and belief, Mr. Rogers's said horse, Aaron, clearly won the third heat, against Mr. Lamego's said horse, Little Driver. And this deponent further maketh oath, and sayeth, that he had no bets depending, was nowise interested in, nor could he receive any benefit or advantage whatsoever from, the decision or event of the said horse-race, [one way or the other.]

"ISAAC TARRATT."

"Sworn at Epsom, in Surrey, the 6th of September, 1754, before me,

EDWARD NORTHEY."

"I do hereby declare my full consent to the above determination. September 14th, 1754. AARON LAMEGO."

In August he beat Lord March's Danby Cade, £50 give and take, at Romford; in September, he was beat by Little Driver, at Maidenhead, £50 give and take. In the first heat, near the ending post, both horses fell, and threw their riders, occasioned by the crowd breaking in upon them. September 26th, at Chipping Norton, Oxon, he won £50 give and take, beating Lord Ferrars's Mark Antony and another. In May, 1755, this famous little horse won another give and take, at Epsom, beating Lord Eglintowne's Lightfoot and another. On August 5th, he fell lame

A

in running at Reading; on the 19th, we find him at Oxford, where he was beat by Lord Onslow's grey horse, Martin. This excellent horse, which has never been surpassed in lastingness and determined perseverance, was under fourteen hands in height.

ABACK. This word is variously applied in the sports of the field, but pronounced *Back*.—*Hark Back!* is a term used to recal those hounds which have over-run the scent; and, indeed, various occurrences may happen in the field to induce the application of this word: in a run with a fox, for instance, which the writer once saw, after running for some time, a fresh fox broke away from some bramble bushes, which the hounds were passing at the time, and while they were viewing the original chase; several of the tail hounds, however, divided, and attempted to run the fresh fox: *Tallyho Back!* was used to call them off, and induce them to rejoin the pack: hence, the application of the term may be easily understood. In giving the expression, perhaps, were the strict rules of punctuation attended to, another mark of exclamation should be used, thus—*Tallyho! Back!* but as the term or phrase is generally spoken or hallooed without any distinctive pause between the words, so one of the marks of exclamation has been omitted, in order to make it appear better in the eye of the sportsman, though not in the estimation of the inveterate cynic or the carping critic. Similar instances may occur in the course of the work, which, we trust, after this short explanation, will be perfectly understood.

The word *Back* is also applied to pointers:—when one dog has made a point, the others, the moment they perceive it, should immediately stop; and this is termed *backing*; or the dogs, in this case, are said to *back*.

AB-AMBOBUS. Of those invaluable sources whence Eclipse and Highflyer deduce their origin, (neither of which horses were ever beat) it is, that this horse boasts his pedigree. He was bred by Mr. O'Kelly, in 1782; got by Eclipse, out of Harmony, by Herod; grandam, Rutilia, (sister to the dam of Highflyer) by Blank; great-grandam by Regulus; great-great-grandam by Soreheels; great-great-great-grandam by Makeless, out of Kit D'Arcy's royal Mare. Abambobus was own brother to Scotia; he was himself a good runner, and, though early lamed, in the name of Chanter, beat several of the best horses of his day:—Alexander, Balloon, Spartacus, Le Picq, Gran-

tham, &c. &c. He was fifteen hands three inches high, remarkably full of bone, in colour bay, and the first produce of his dam.

ABATURES. Foiling the sprigs or grass which are thrown down by the stag or deer in passing.

ABBA THULLE, bay, bred by Mr. Dodsworth, in 1786, got by Young Marske, dam by Chatsworth, grandam by Engineer, Wilson's Arabian, Hutton's Spot, Mogul, Crab, Bay Bolton, Curwen Barb, Spot, White legged Lowther Barb, Vintner Mare. In 1789, Abba Thulle won £50 at Durham; 1790, twice £50 at Hexham, twice £50 at Lancaster, and the gold cup at Doncaster; 1791, £50 at Preston, Lancaster, Morpeth, Dumfries, Perth, 140 guineas at Nantwich, the gold cup at Richmond, and the King's plate at Carlisle; 1792, £50 at at Preston, and Doncaster, and 80 guineas at Nantwich; 1793, the gold cup at Richmond, and 210 guineas at Nantwich. Abba Thulle now became a covering stallion; he was sire of Milbanktonia, Airy, &c. He was sold to Russia.

ABBATIS. A sort of steward of the stables, or hostler; called also an Avenor. An obsolete term.

ABDOMEN. The cavity in animals containing the intestines or bowels, liver, stomach, kidneys, &c. commonly called the belly. It is divided from the thorax or chest, by the membrane called the diaphragm, skirt, or midriff.

ABORTION. Miscarriage, or slipping the foal. Mares that are overworked when far gone with foal, are liable to this accident; it may also be brought on by any thing which causes the mare to strain and struggle much, or from being struck or kicked on the belly. The best way to prevent abortion is, not to allow the mare to work during the latter months of gestation.

ABSCCESS. A collection of matter generally arising from a bruise or other injury.

ABSORBENTS. Chalk, prepared oyster-shells, bole, and many other substances that readily take up or absorb fluids, are thus called:—preparations of this kind are sometimes given to the horse, with the intention of correcting any hurtful matter that may be supposed to exist in the stomach. They are, however, seldom productive of any good; and in the cases where they were formerly given, mild purgatives are now found to answer much better.

ABSORBENT VESSELS. These are

small transparent canals, which are supposed to exist in every part of the body of an animal; their office is to absorb any useless fluid, or other matter, that may be in the cavities or other parts of the body. They are divided into lacteals and lymphatics.

ACACIA, chesnut, bred by Mr. Pantton, 1787, got by Turf, out of Madonna, by Herod; grandam by Snip, Bay Bolton, Darley's Arabian, Byerly Turk, Place's White Turk, natural Barb mare. Of Acacia's exploits we have but little to record; in 1791 he won £50 at Lewes, beating Bustler, Gunpowder, and Æolus. He was sire of Lismahago, Paulina, &c.

ACCLOYED. An obsolete term in farriery; it has been used to signify an injury sustained in the foot by shoeing; as when a nail had swerved from its proper direction, and punctured, or pressed too close upon, the membranous mass, so as to occasion lameness; the horse was then said to be *Accloyed*.

ACIDS. Medicines that have a sour taste. Acids are divided into three classes; the mineral, vegetable, and animal acids. The mineral acids used in veterinary practice are the sulphuric, the nitric, and the muriatic. The vegetable acids, the acetic, or acetic acid, commonly known by the name of vinegar; and the tartaric acid, or rather its combination

with a small proportion of potash, which is named cream of tartar.

ACOPUM. We sometimes meet with this word in old veterinary authors; it signifies a composition used by the antients, as a cordial or stimulant. It consisted of about thirty ingredients; some of which were powerful stimulants. They used it both internally and externally.

ACRIMONY is a state of the blood disposing it to certain diseases, by the quantity of the serum in the blood becoming too great for the proportion of crassamentum with which, in its state of active fluidity, it is combined, for the purpose of regular circulation, so necessary to the health of the animal. Blood, thus deprived of its properties, soon displays, in horses, a tendency to those diseases which are termed *acrimonious*.

ACTION is a word much used by the sporting world, to signify the peculiar property of a horse by his *good* or *bad action*.

ACTUAL CAUTERY. The application of red-hot iron, as in firing, docking, &c.

ADAMANT, bay, bred by Lord Grosvenor, 1755; was got by Herod, out of Seraphina, by Blank; grandam by Blaze; great-grandam by Greyhound; great-great-grandam by the Curwen Bay Barb. Adamant covered in Leicestershire at five guineas.

ADDER.—The term *Adder-stung* is indiscriminately applied, in some parts of the country to the bites and stings of venomous animals and insects without distinction. The adder or viper seldom exceeds two feet in length, though they are sometimes found more than three. The ground colour of their bodies is a dirty yellow, deeper in the female than in the male. The back is marked throughout with a series of rhomboidal black spots, joining each other at the points; and the sides have triangular ones. The belly is nearly black. They are chiefly distinguished from the common snake by their darker belly; their head much thicker than the body, and in particular by the tail; which, though it ends in a point, does not run tapering to so great a length as in the snake. When, therefore, other distinctions fail, the difference of the tail may be distinguished at a single glance. Vipers are common enough in morasses and fenny places, as well as in dry and sandy banks; in all probability, they frequent the former in summer and the latter in winter. The adder, like the rattlesnake, and all other venomous serpents, has two large teeth or fangs that issue from the upper jaw, and that hang out beyond the lower: these are only to be found in those serpents which are venomous, the common snake being destitute of them. The wounds which these fangs inflict produce the most dangerous symptoms; while the wounds

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inflicted by the teeth only, are attended with nothing more than the ordinary consequences of the bite of any other animal. The adder is furnished with an elaboratory where the poison is formed, a canal by which it is conducted to the jaw, a bag under the tooth for keeping it ready for every occasion, and also an aperture in the tooth itself for injecting it into the wound. To be more particular, the glands that serve to fabricate this venomous fluid, are situated on each side of the head behind the eyes, and have their canals leading from thence to the bottom of the fangs in the upper jaw, where they empty into a kind of bladder, whence the fangs on each side are seen to grow. The venom contained in this bladder is a yellowish, thick, tasteless liquor, which, injected into the blood, produces the most alarming consequences, or perhaps death. This poison, according to Dr. Mead, when diluted with a little warm water, and applied to the tip of the tongue, is very sharp and fiery, a sensation taking place as if the tongue had been struck through with something scalding or burning. This, he says, goes off in two or three hours. One person mentioned by Dr. Mead, tried a large drop of it undiluted; in consequence of which, his tongue swelled, with a little inflammation; and the soreness lasted two days. Other persons, on the contrary, assert that it has no particular acrimony of taste; but that, in this respect it rather resembles oil or gum. Contradictions somewhat similar have taken place relative to the effect of viperine poison taken into the stomach. Boerhaave asserts that it produces no ill effect whatever; while the Abbé Fontana maintains a contrary opinion, although he admits that it possesses no unpleasant taste. We are told, however, that, in the presence of the Grand Duke of Tuscany, while the philosophers were making elaborate dissertations on the danger of the poison taken inwardly, a viper catcher, who happened to be present, requested that a quantity of it might be put into a vessel, and then, with the utmost confidence, and to the astonishment of the whole company, he drank it off in their presence. Every one expected the man instantly to drop down dead; but they soon perceived their mistake, says the relater of the story, and found, that, taken inwardly, the poison was as harmless as water.

The fangs that give the wound are large in proportion to the size of the animal that bears them; crooked, yet sharp enough to inflict a ready wound. They grow, one on each side, and sometimes two, from two moveable bones in the upper jaw, which, by sliding backward or forward, have a power of erecting or depressing the teeth at pleasure. In these bones are also fixed many teeth, but no way venomous, and only serving to take and hold the animal's prey. Besides this apt disposition of the fangs, they are hollow within, and have an opening towards the point, like the slit of a pen, through which, when a fang is pressed down upon the bladder where it grows, there is seen to issue a part of the venom that lay below. To describe this operation at once:—when the adder is irritated to give a wound, it opens its jaws to the widest extent; the moveable bones of the upper jaw slide forward; the fangs that lay before inclining, are thus erected; they

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are struck with force into the flesh of the obnoxious object ; by meeting resistance at the points, they press upon the bladders of venom from whence they grow ; the venom issues up through the hollow of the tooth, and is pressed out through its slit into the wound, which, by this time, the tooth has made in the skin. Thus, from a slight puncture, and the infusion of a drop of venom scarcely larger than the head of a pin, the part is quickly inflamed, and without a proper antidote, the whole part completely contaminated. Hence, it would appear that the venom of the viper is perfectly innocuous when taken internally ; as little doubt can be entertained that the adder, in seizing its prey, injects a portion of the noxious fluid into the animal, which it immediately swallows. It is, then, the infusion of the liquid into the blood, that causes these alarming consequences which have repeatedly been witnessed : nor, indeed, is it to be wondered at, when we consider that even milk, and also atmospheric air, when injected into the blood, produce death.

The appearances which the bite of the adder produces will be found to vary according to the strength of the reptile which strikes the blow ; or the season may also perhaps have some influence in the same way. If an adder bites a human being, and the wound be neglected, it first causes an acute pain in the affected part, followed by a swelling, first red and afterwards livid. This by degrees spreads to the neighbouring parts ; great faintness, and a quick, though low and interrupted, pulse ensues ; to this succeed great weakness at the stomach, bilious and convulsive vomitings, cold sweats, pains about the navel, and death itself. Nothing can more justly excite one's wonder than that so small a portion of venom should produce such powerful and deadly effects.

The most esteemed and best remedy for the bite of the viper or adder, is olive oil ; salad oil, or common sweet oil, will answer the same purpose ; and perhaps other vegetable oils would effect a cure ; but animal oil in all probability would have no such effect. Of the efficacy of common sweet oil, the writer was an eye witness. Some years ago, in the month of August, he went, accompanied by a setter dog (which would take the water) to a marshy, fenny spot, for the purpose of shooting young wild ducks ; when, after about a quarter of an hour, the dog was bitten by an adder in the nose, which swelled to a prodigious size immediately. Aware of the remedy, the writer hastened to the nearest house, distant nearly two miles ; and by the time he reached it, the dog's nose appeared frightful. Fortunately there happened to be some sweet oil in the house, which was immediately rubbed on the wound, and the swelling around it : the part affected was rubbed for a considerable time at intervals, though the surprising effect of the oil was very soon remarkably conspicuous. In the course of an hour, the dog appeared perfectly recovered, and the next morning not the slightest swelling or affection was perceptible. In case a human being is bitten by an adder, sweet oil will be found equally efficacious. An adder, having once bitten, exhausts for that time the greatest part of its poison ; and though the wound caused by its biting a second time, will be attended with some malignant symptoms,

yet they will be much milder than before. It has been proved by experiment, that a serpent biting upon a sponge, or piece of soft bread, and then biting a dog immediately after, did not inflict a wound more dangerous than the prick of a needle.

The progressive motion of the adder is slower than that of the snake; from which it also differs in the manner of bringing forth its young, which are excluded completely formed and alive; while the snake deposits eggs, which are hatched afterwards by atmospheric heat. Adders are supposed to copulate in May, and to bring forth three months afterwards; they have seldom more than eleven eggs at a time, and these are of the size of a blackbird's, chained together in the womb like a string of beads. Each egg contains from one to four young ones, so that the whole of a brood may amount to twenty or thirty. They continue in the womb till they come to such perfection as to be able to burst from the shell, and, it is said, that they creep from their confinement by their own efforts into the open air, where they continue for several days without taking any food whatsoever.

ADDER-STUNG. Horses are often stung by wasps, hornets, and a large fly, called, from its stinging the horse so frequently, "the horse-fly:"—these are generally all called by the above term, by those who do not take the trouble to think that these insects are much more common in our pastures than the viper or adder.

ADMIRAL, bay, bred by R. Vernon, Esq., 1779, got by Florizel, dam (sister to Juno) by Spectator; grandam (sister to Horatius) by Blank, Childers, Miss Belvoir. Admiral won races of 1500 guineas, 300 guineas, 50 guineas, 100 guineas. He beat Sweet William, a match, 500 guineas; a plate, three miles, beating Regent and five others; a match, the Duke of Bolton's Achilles, by Eclipse. He was about fifteen hands and a half high, full of bone, and covered at Buntingford at two guineas.

ADOLPHUS, roan, bred by Mr. Martindale, 1750; got by Regulus, out of Miss Layton, (Lodge's roan mare) by Partner; grandam by a horse bred by Lord Cardigan, got by the Duke of Richmond's Turk, out of a full sister to Leedes; great-grandam by Why-Not; great-great-grandam by Wilkinson's bay Arabian, out of a natural Barb

mare, bought by Mr. Wilkinson of Lord Arlington, secretary of state to King Charles II. to whom she was a present from the emperor of Morocco.

ÆGYPTIACUM. The mil ægyptiacum, so much used by some farriers as a detergent dressing, in foul and indolent ulcers, is made in the following manner:—take one pound of honey, five ounces of powdered verdigris, and seven ounces of vinegar; boil these all together, until the mixture is of a deep red colour, and as thick as the honey was before mixing it with the vinegar.

A. F., in the language of the turf, is an abbreviation of "across the flat," a course for two-year-olds, of one mile and a quarter, at Newmarket.

AFFOREST. To afforest is to turn land into forest; and, on the contrary, to disafforest is to convert a forest into cultivated ground.

AGARIC. A fungous substance, growing on the oak and other trees. Agaric has been used as a styptic; but at present is seldom, if ever, employed in modern veterinary practice, as more effectual means may, on all occasions, be found.

AGE.—The following rules for determining the age of different animals, as well as of the horse, will be found extremely serviceable to sportsmen;—we shall begin with the rules for knowing the

AGE OF THE DOG.—The age of a dog may be ascertained, in a very great degree, by the appearance of his teeth. When a dog is twelvemonths old, his teeth will present a very white, clean appearance; and the front teeth will be completely serrated: as the animal advances

in life, this saw-like appearance will gradually wear away; at two years old, it will be very perceptible; at three, it may still be discerned, but at four, nothing of it is to be seen: if the dog be chiefly fed on bones, the serrated appearance of the front teeth will much sooner disappear than when he is principally fed upon soft provisions. The front teeth are the first to wear away and fall out; though, as the animal advances in age, the fangs or canine teeth become obtuse and discoloured towards the bottom; and indeed the mouth altogether assumes an appearance sufficiently indicative of the subject in question, and which can never be mistaken by those who have paid the slightest attention to it. But there are other appearances expressive of advanced age, which are obvious to the most superficial observer, namely, the dimness of the eyes, and a grayness about the nose and head; and these will be perceptible (early or late) according to the constitution of the animal, or according to the labour or fatigue he has undergone. A pointer which is worked very hard will often manifest symptoms of old age by the time he has reached his seventh or eighth year; while one that has only moderate exercise will not exhibit such appearances till ten or twelve; the same observations will apply to the greyhound; but, of all the dog tribe, none shews age at so early a period as the foxhound; this arises from the nature of his occupation; and thus, as he frequently undergoes the most violent exertion, and the most excessive fatigue, so he becomes old at an early period (if the expression may be allowed); and may be said to be worn out precisely in proportion to his labour. The age of a fox may, no doubt, be ascertained in the same way.

THE AGE OF A HART OR STAG may be tolerably well known by the furniture of his head. At a year old, there is nothing to be seen but a horny excrescence which is short, rough, and covered with a thin, hairy skin. The next year the horns are single and straight: the third year they have two antlers; three the fourth; four the fifth; and five the sixth: this number is not always certain, for sometimes there are more and often less. When the hart is arrived at the sixth year, the antlers do not always increase; and, although the number may amount to six or seven on each side, yet the animal's age is then estimated, rather from the size of the antlers and the thickness of the branch which sustains them, than from their variety.

THE AGE OF THE HARE.—A young hare, that has attained its full growth, may be known from an old one by feeling the knee joints of the fore legs with the finger and thumb nail. When the heads of the two bones, which form the joints, are so close that little or no space is to be perceived between them, the hare is old. If, on the contrary, there is a perceptible separation, the hare is young; and is more or less so in proportion to the separation of the bones. It may also be known, whether a hare is old or young, but without pretending to ascertain the precise age, by compressing the under jaw bones; if they break at the point immediately under the fore teeth, upon a slight degree of pressure, the hare is certainly a young one; but if considerable force is required, the contrary may be inferred. The same remarks will apply to the rabbit.

THE AGE OF FEATHERED GAME.—Young grouse are sufficiently distinguished by their smaller size the greater part of the shooting season to need any further distinction; and after the first year, there is no criterion by which to judge of the precise age of this bird. While partridges are young and their plumage is not complete, they may be distinguished from the old ones by the first feather of the wing, which terminates in a point like a lancet; whereas, in those which are not of the last brood, this feather is round at the extremity; but this distinction ceases after the first moulting:—also, the bill of the young bird is brown, while that of the old one is a bluish white; the legs of the old ones a sort of bluish or slate-coloured gray; those of the young are yellow. Young pheasants are much smaller than the old birds; and till the moulting season, their plumage is similar to that of the hen. After moulting, the young male birds assume the elegant plumage of the cock, but yet are sufficiently distinguishable from the old male bird by their size, as well as from the spurs on the leg, which, in the young male bird, appear like blunt protuberances; indeed, a tolerable idea of the age of the cock pheasant may be formed from the spurs, which evidently increase in length for some years. Generally speaking, the age of the pheasant may be ascertained much in the same manner as that of the partridge.

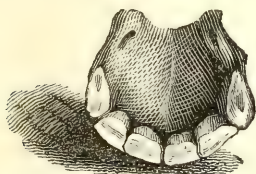
AGE OF THE HORSE.—There are no certain marks by which we can judge truly of the age of a horse but his teeth; and these only for a certain time: after that time, there is no method to be depended upon, but we may form a good guess by the front teeth of his upper jaw, until he is about twelve or thirteen; especially if we take into consideration the countenance of the horse, with some other marks which we shall point out.—A horse has forty teeth, twenty-four called *grinders*, from which we learn nothing of his age; then six above and as many below, in the fore part of his mouth, called *gatherers*, or *cutting* teeth, and it is from these we know his age; then four tushes, two above and two below, sometimes named *bit teeth*, making in all forty. Mares generally have no tusks, their teeth are therefore only thirty-six. When a colt is foaled, he has no teeth in the front of his mouth; in a few days, two above and two below make their appearance; soon after these, four others appear; after these, it is usually three or four months before the corner teeth make their appearance. These twelve colt's teeth in the front of the mouth, continue without alteration, till the colt is two years or two years and a half old; he then begins to lose his colt's teeth for permanent ones, sooner or later, according to the manner in which he has been fed.

As it is from the front teeth of the *lower* jaw a horse's age is known, until he is in his eighth year, it is to these only we shall confine our attention. At about two years and a half old, he sheds the two middle teeth of the six; (as these first appear in the colt's mouth, so are they the first to disappear); these are succeeded by two permanent or horse teeth, stronger, of a deeper colour, and grooved or fluted from top to bottom, with a black cavity in the centre; he is now rising three.

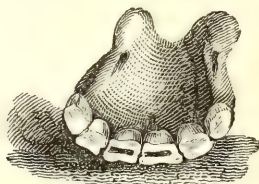
His mouth continues thus till some time in the latter part of the fourth year, when the same process takes place with the teeth on each side of the two in the centre ; so that at four years old, he becomes possessed of four horse teeth in the middle, with their natural black marks in the centre ; and one colt's tooth only on each side.

The next he sheds are the two remaining, or corner teeth ; when he has got the successors to these, his mouth is full ; he is then called a horse, five years old : he has the black mark now in all the six front teeth.

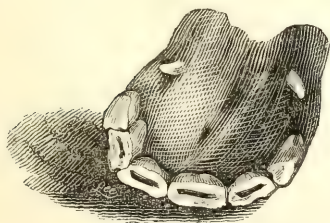
During the course of this year, the *tusks*, situated beyond the corner teeth, upon the bars, appear : he is now five years old, off ; and through the whole of the year is "rising six :"—we say, "he will be six years old next grass." Sometime in the last six months of the sixth year, the black cavities of the two middle teeth are gradually filled up ; and when he is *turned* six years old, they are nearly, or quite smooth upon the surface. In the latter part of the seventh year, when the horse is termed "six off," six past, or rising seven ; the teeth on each side of the two centre ones, become gradually possessed of the same appearance ; and when he is seven years old, the two outside or corner teeth only, are marked with the black cavity.



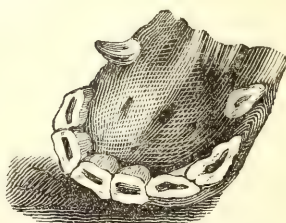
TWO YEARS AND A HALF.



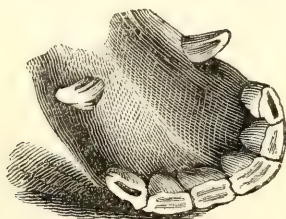
RISING THREE YEARS.



FOUR YEARS.



FIVE YEARS.



SEVEN YEARS.

After this period, the horse is said to be aged ; and from this time to the completion of his eighth year, the mark in the corner teeth continues gradually to disappear, till it is quite gone, when the age by the teeth is no longer known. He is now "past the mark of the mouth."

After this period, you may judge of the age by the marks or cavities in the *upper* teeth. At about ten, the two front teeth have lost their marks ; the two next them have but little left, but in the corner teeth these marks may be readily seen ; these gradually wear out, and during the twelfth year are quite erased. The tushes, like the teeth, are gradually changing their appearance ; they are small, sharp, and shell-like at first, and are grooved on their inner surface ; they gradually become larger and longer ; the concavities or grooves on their insides also lessen ; and at about eight, they are nearly lost. At about eleven and a half, or twelve, the inside of the tush begins to approach towards a round form, and after becomes quite round ; they are then blunt at the top and of a yellowish brown colour. The teeth of horses as they advance in years, appear longer, from the gums shrinking from them, they get more oblique in their position ; they also acquire a much darker colour. Horse dealers are said to practice numerous artifices in order to deceive their customers, with respect to their horses' ages : one of these is termed *bishopping* ; that is, making artificial marks in the teeth, when the natural ones are worn out ; but there is always a want of resemblance between the natural and artificial mark, you may likewise compare them with the state of the tushes. They also knock out the corner teeth of four year olds, to make them appear five ; for when these are removed before their time, they are soon succeeded by horses' teeth : this may be detected by the want of tushes. In racing, all horses take their ages from May-day.

AIR-GUN. This is an instrument neither so well known, so common, nor so generally applicable to the purposes of the sportsman, as the fowling-piece. This treacherous engine has been long known, but at what period it was first introduced cannot be ascertained with precision. In England the use of the air-gun is better understood than in any other part of the world, where it is manufactured in various forms, and altogether in a very superior manner. As the projectile force, or power of impulsion, arises, in the fowling-piece, from compressed air, so, in the instrument under consideration, the power is produced by compressed air also, but of a different quality ; it is consequently procured in a different manner, and the discharge of it is far less effective. It is the usual calculation, that gunpowder contains a thousand times its own bulk of fixed air ; or, in other words, that a grain or a charge of gunpowder, on its ignition, generates an air or fluid, which expands one thousand times larger than the original bulk

from which it was produced ; consequently, gunpowder will be strong in proportion to its expansive power on ignition : this gaseous fluid, for the sake of distinction, we will call inflammable air (as it is not our object to enter into a chymical analysis or disquisition.) Thus, while the fowling-piece derives its force in the manner just described, the engine which forms the subject of the present article, is discharged by the compression of atmospheric air, and the force of the discharge will, of course, always be found in proportion to its power of compression.

Air-guns are made in the form of the fowling-piece or musket, with the addition of one or more spheroidal balls, into which the air is forced, by means of an instrument or pump made for the purpose. One of these balls, when filled, is attached to the gun by means of a screw immediately under the breech, and, by pulling the trigger, the valve is momentarily forced open, a portion of air escapes into the gun-barrel, and thus the ball is discharged.

Hence it results, that the first discharge will be the most powerful or strongest, and that every successive discharge will become weaker and weaker, till it is absolutely ineffectual. The number of effective discharges will of course be in proportion to the size of the ball, and of the strength which is applied to the forcing-pump. For rook-shooting the air-gun is preferred by some to the cross-bow, particularly since it has been manufactured in such a form as to offer no very indifferent resemblance to a stout walking-stick. An air-gun thus becomes very portable, as the pump which is applied to these walking-stick air-guns may be easily put into a common-sized coat-pocket without inconvenience. Instead of spheroidal balls, as in the former case, for containing the compressed air, the walking-stick air-gun is so contrived, that the breech of the barrel answers the same purpose. They are more powerful engines than the cross-bow, while the discharge of them is attended with very little noise, and no re-percussion whatever. In the fowling-piece, it was formerly considered, that the force of the discharge would be in proportion to the length of the barrel, (see the article FOWLING-PIECE;) and this erroneous notion was equally applied to the air-gun; and, in consequence, air-guns were formerly made of a much greater length than necessary, and the force of the discharge decreased accordingly.

For buck or deer-shooting, the best air-gun is not sufficiently powerful; for rook-shooting it is very well calculated; and could we stop here, it would be all very well; but this mischievous instrument has sometimes been applied to the most diabolical purposes; and has at length found its way into the hands of the poacher, who very willingly uses it for nocturnal depredation.

Air-guns are principally made in Birmingham; and those which are used by the poachers, are manufactured so as to represent those stout walking-sticks which are formed rough, in imitation of the bark of trees. This disguises the instrument so completely, that a close inspection only will enable a person to discover the deception. Air-guns are used with the most destructive effect amongst pheasants, as these birds roost on trees during the winter, and are easily brought down by them, and that, too, without the noise and alarm which cannot fail to result from the discharge of the fowling-piece.

AIRING OF HORSES. When a horse is not in work, and stands all day shut up in the stable, it is quite impossible for him

to enjoy health, without regular airings. if kept in the stable without exercise, his strength fails, he loses his appetite, and his breathing becomes thick. The best time for airing horses is early in the morning, and he should be kept out two hours or more. These airings will keep him in health, and make him capable of ordinary exertion, or moderate work.

ALANDES. An obsolete term for wolf-dogs.

ALANERARIUS. An obsolete name for the keeper or manager of spaniels or setting-dogs, used in hawking; also a falconer.

ALCOHOL. Rectified spirit of wine.

ALIMENT is that which affords nourishment to the animal. The best food or aliment for horses that work in a moderate way, is good hay and oats; beans are certainly of great use for those which are harder worked; sweet clover hay, cut short, is a useful addition to these. Some horses thrive, and look sleek, and in condition, with a much less quantity of food than is required to produce any thing like the same appearance in another; and such horses should be fed accordingly, though they should be allowed no more than is really necessary. The best plan is to give them a little at a time, and often; they will thus make less waste, and enjoy it much more. It is one of the worst things for the horse, to let him stand long without something before him to eat; it is productive of many diseases. The horses used in the mines of Wales suffered much, and many were lost, by the disease called the sleepy staggers, which has its seat in the stomach, and may be said generally to arise from over-distension, produced by previous debility from long fasting. These horses now always wear nose-bags when at work; and the disease has left the mines. Horses that are used merely for short rides, and taken out only occasionally, should have bran mash now and then, or they may be fed constantly with a mixture of bran and oats; this is of great use when the horse is inclined to costiveness, and in such cases green meat will be of service.

ALL-AGE stakes or plates, are those for which start any horse, mare, or gelding, including three-year-olds, carrying weight according to their age, with allowances, and sometimes extras, according to circumstances.

ALLAY. To allay a pheasant, is to cut or carve it at table:—we need not tell our readers that it is perfectly obsolete.

ALLOW, or ALLOWANCE. An archer

is said to allow, or make allowance for the wind, when he shoots somewhat wide of the mark, and on that side nearest the wind, in order that the wind may bring his arrow into the line of the mark.

ALLOWANCE, in the language of the turf, signifies a certain weight (usually three pounds each) which mares and geldings are allowed to carry less than such horses as they may be running against; also, if coming of untried parents, three pounds is allowed for horses, mares, and geldings, against those who come of tried parents. Fillies always carry less than colts, by two, three, four, and sometimes even five pounds; this, however, is not called by any name.

ALLÛRE. To allure is to draw to the line or bait.

ALODARICS. Lords of free manors—lords paramount.—*Obsolete*.

ALODIUM. A free manor.—*Obsolete*.

ALOES are distinguished by the name of the place from whence they are brought. The Socotrine aloes are brought from the island of Socotra, and are supposed to be more safe in their operation than the other kinds. This aloes is of a dark brown colour, opaque, and has a less disagreeable smell than the others. The Barbadoes aloes is brought from Barbadoes, and has been generally considered apt to produce griping, and other unpleasant effects; it is of a darker colour than the former kind, less brittle, and of a stronger and more disagreeable smell. It is more active than the Socotrine, and for that reason is more used in veterinary practice than it, though this kind of aloes has its advocates. The Cape aloes is rather transparent, very brittle, easily powdered, and is of a bright yellow colour; its smell is not so strong as the Barbadoes, but stronger and less agreeable than the Socotrine. It is much lower in price than either of the others, but is so uncertain in its effects, that it is hardly ever employed in medicine. The aloes is the most effectual purgative for horses with which we are acquainted; it is generally made into balls with the addition of soap, which makes them operate more speedily. The dose of Socotrine aloes is about six drachms; Barbadoes, from four to six drachms; and of the Cape aloes, from six to seven drachms; but the dose depends upon the form of the horse, and not his size, as might be supposed.—*See Purgings*.

ALTERATIVES are medicines which act very gradually on the system, and without any very sensible increase or di-

minution of the natural evacuations. Those most commonly used in veterinary practice, are antimony, sulphur, nitre, resin, Æthiop's mineral, &c. Alteratives require to be continued for a long time; and the cases in which they are most commonly employed, are diseases of the skin. They act by producing an increased discharge from the bowels, the kidneys, or the skin. One of the best alteratives in many cases, is a run at grass, for a month or two; and when this can be given, it will often do away with the necessity for medicines. When this cannot be done, feeding in the stable, on vetches, lucerne, &c., will be found a good substitute.

ALTISIDORA. This celebrated mare, the winner of the Doncaster St. Leger, 1813, was bred by R. Watt, Esq. Altisidora, chesnut, was got by Dick Andrews, out of Mandane, sister to Enchanter, by Pot-8-os; grandam Young Camilla, sister to Colibri, by Woodpecker; great-grandam Camilla, by Trentham; great-great-grandam Coquette, by the Compton Barb, out of a sister to Regulus, by the Godolphin Arabian.

Performances.—1812, April 8th, 60 guineas at Malton; May 27, 180 guineas at York. 1813, May 25, 80 guineas at York; September 27, the great St. Leger, Doncaster; September 30, a sweepstakes of 320 guineas at Doncaster. 1814, August 22, a match, beating Cameleopard, 500 guineas, at York; a sweepstakes, 250 guineas, beating Catto Llangold and Georgiana; September 29, walked over for the club stakes at Doncaster. 1815, August 23, one of the great subscriptions at York; September 25, the Fitzwilliam stakes at Doncaster; September 28, a sweepstakes of 75 guineas at Doncaster; October 11, the King's plate at Richmond.

Produce.—1817, chesnut colt Cæsar, by Cerberus. 1818, chesnut colt Cataline, by Cerberus. 1819, chesnut filly by Rubens. 1820, bay colt Abron, by Whisker. 1821, chesnut filly by Blacklock. 1822, bay filly by Walton. 1823, chesnut filly by Catton. 1824, chesnut colt by Magistrate. Altisidora died January 23, 1825, at Bishop Burton, aged fifteen.

ALUM. A saline substance, possessing a considerable astringent power. It is often used, when burnt, combined with sulphate of copper, or red precipitate, to cleanse foul and indolent ulcers in horses. It is used internally, in doses from half an-ounce to an ounce or more.

A. M. Ancaster Mile at Newmarket; length, 1778 yards.

AMAUROSIS. A disease of the eye, attended with total blindness, without any altered appearance of the eye; it does not often occur in horses, and when it does is not easily distinguished, on account of the eye retaining its natural appearance. One plan for observing it is, by turning a horse loose into a place where want of sight will be discovered by his running against objects: but this can only be of use in discovering the disease, when he is blind of both eyes: a much better method is, to close the eyelids with your finger and thumb, and keeping the eye shut for a minute or two: on opening the eye, you will see the pupil, or black spot in the centre, grow larger, if he is not blind; but if it remains unaltered, of the same size, he has got amaurosis, which is a decay of the optic nerve, and is of course incurable.

AMBER. The essential oil of amber is the only preparation of this article which is used in veterinary practice; it is of a dark colour, and to most people its smell is very disagreeable. It was formerly much used as an ingredient in *strain oils*, combined with other oils, as turpentine. It has been given internally in spasmodic cases, in doses of from one drachm and a half to half-an-ounce; but for any purpose in which it was formerly used, we have now much more efficacious remedies.

AMBLING. A pace in a horse, almost peculiar to ponies and galloways; it is a very easy pace for the rider, but is now in very little use: formerly it was taught by forcing the animal to go with his legs tied; we now very wisely adhere to the natural paces of the horse, which are, the walk, trot, canter, and gallop.

AMBROSIO, bay, foaled in 1793, was got by Sir Peter Teazle, out of Tulip, by Damper, grandam by Eclipse; Rarity by Match'em, out of Snapdragon, by Snap; Regulus, Bartlett's Childers, Honeywood's Arabian, dam of the Two True Blues. In 1796, Ambrosio (the property of Mr. Lowther) won £50 and 150 guineas at York; after which, he was purchased by Mr. Cockson, and was a winner of 275 guineas at York, and the great St. Leger at Doncaster; 1797, the first class of the Otland stakes, 100 guineas and 200 guineas at Newmarket; 1798, the third class of the Otland stakes, 50 guineas, 200 guineas, the Jockey Club Plate, 25 guineas, 400 guineas, and 200 guineas, at Newmarket; 1799, £50 at Newmarket, £225 at York, and 200 guineas at Doncaster. Ambrosio covered at Barham Wood, near Edgeware, Herts, at ten guineas; he was sire of Jewess, Black-and-all-Black, Frances, Rosario, Mousetrap, Brown Bess, Matilda, Huntingdon, Jack Spavins, &c.

AMBURY. A kind of wen, or spongy wart; they are generally found about the nose and sheath of horses. They are of various sizes, and are in appearance something like a large mulberry. When they are small at the part by which they grow from the body, tie a strong thread round them, and pull it a little tighter every day for about a week, when they will drop off. When the wart has fallen off, touch the part every morning with lunar caustic, for three days or more, which will destroy the roots, and prevent its returning. When they grow from the horse by a broad base, the best plan is to eat them off by means of some escharotic application, as the butter of antimony, powder of verdigris, &c.

AMMONIA. There are several useful preparations of this article kept by the veterinary surgeon. The carbonate of ammonia is a stimulant, and cordial, and is given in doses from one to two drachms. The liquor or water of ammonia is used externally, as a useful stimulant for dispersing indolent lumps or tumours, formed into an embrocation, by mixing it with equal parts of sweet oil and oil of turpentine, to which camphor is added.

AMMONIACUM. Gum ammoniacum is an expectorant, and is given to the horse in doses of from two to three or four drachms. It is given in chronic cough, combined generally with the powder of squills; sometimes with camphor, opium, balsam of sulphur, or balsam of tolu. The horse should be bled, and take a purging-ball, previous to taking any of these expectorants, which will render them much more useful. It is only in chronic coughs, or those which have become habitual, that ammoniacum is useful. For those which are recent, and depending on inflammation, other means must be employed. (*See Cough*) There are two kinds of gum ammoniacum sold in the shops; the best is called drop ammoniacum, and is in small pieces or drops, of a whiter colour than the other sort, which is yellowish, and contains small pieces of wood, and other extraneous matter; when this is employed, these should be separated from the gum, by pounding it in a mortar, and sifting it.

ANASARCA, or external dropsy, is a collection of serous or watery fluid in the cellular membrane under the skin. It has often been called water-farcy by the farriers, with their usual inaccuracy. It some-

times affects only particular parts, as the lips, belly, or legs; at others it is diffused over the greatest part of the body. These swellings may be distinguished by their size, their coldness, and by their retaining the impression of the fingers for some time. It generally depends upon weakness; for horses which are poorly fed, as in low marshes, or on moors, are often affected with a kind of dropsical effusion, called by the country people *moor-evil*; and it is often attended with great danger.

ANCASTER DRIVER was bred by his Grace, 1727; Driver was got by Wynn's Arabian, out of the Lady mare, by Pert; grandam by St. Martin's. In May, 1732, he won the Wallasey stakes, in Cheshire, of 500 guineas; in October, the Wallasey stakes, at Newmarket. In 1733, the same stakes, of 600 guineas, at Newmarket, to which place they were removed, on the discontinuance of racing at Wallasey; he also beat Seymour's Archer, for the Ladies' plate, at Stamford; he likewise won the King's plate at Nottingham. The following summer closed his career as a racer,—he was let down in running at Northampton. Driver was sire of Frisky, Dizzy, and Mr. Villa Real's grey mare, Polly Bell, &c.

ANCHYLOSIS. Two or more bones becoming joined together, in consequence of injury, forming a stiff joint. Firing and blistering are the remedies usually employed; but they are almost always ineffectual. The writer of this article recollects a small horse, which for many years was used in the ring at Mr. Astley's amphitheatre; on dissecting him, several of the bones of the lones (*lumbar vertibræ*) were found united firmly together, in consequence of the injuries he had received from the continual vaulting and jumping on his back. This horse had several other peculiarities, all arising from the kind of work he had been employed in.

ANEURISM. A pulsating tumour communicating with an artery. This disease rarely occurs in horses.

ANGLE-BERRIES. Spongy excrescences, found on various parts of the bodies of horses, have been so termed by old writers on the veterinary art.

ANGLING. Notwithstanding the many sarcasms that have been thrown out by a variety of authors against the practice of angling, there are a number of circumstances, independent of the natural predilection which many evince, that concur to render the diversion more extensively practised than most others: requiring neither

qualification nor license, the angler is less liable to be informed against, even should he commit a trespass, than the shooter, whilst the number of *free waters* enables him to choose those situations where he is in no danger of being annoyed: the delightful season of the year is another inducement; whilst it is at this time, that, "people being gone out of town," the London tradesmen and shop-keepers are enabled to spare a little time for angling, which they could but ill afford during the winter season. Angling, indeed, has long been the particular amusement of the Londoners (perhaps because they could get no other); and it is this, together with the superiority of their tackle, and the comparative scarcity and shyness of the fish in the waters frequented by them, that renders the London angler much superior in point of skill to the provincial sportsmen, in every department except fly-fishing: here it is that the London angler fails, through want of practice, there being few really good trout streams near the metropolis, except those which are private property; whilst in Wales, the north of England, and Scotland, every brook literally swarms with these fish, affording to the inhabitant of those parts continual practice of the best kind, no fish living so exclusively on flies during the summer season as the trout, with the exception of the grayling or umber, a fish remarkably scarce in the south.

The first thing to be attended to by the angler is the necessary apparatus, consisting of rods, lines, winches, float, hooks, landing rod, landing net, plummets, baiting needles, disgorgers, clearing ring, drag hook, split shot, two or three leger leads, a pair of pliers for putting shot on a line, caps for float, kettle for live bait, a pannier or basket for ground bait, gentle-boxes, bag for worms, a piece of Indian rubber, bank runners, cork or man of war trimmer, thumb winder, book of trolling tackle, books of flies with materials for making them, a piece of shoemaker's wax and a bit of soft leather; also, a pocket-book of fishing tackle, with a reel to hold lines.

THE ROD. As the angle-rod is a material article in the angler's catalogue, much care should be taken to procure a good one. The fishing-tackle shops keep a great variety, made of bamboo cane, hazel, hickory, &c. and of different lengths; some fitted as walking canes, and others to pack in canvas bags: the latter are to be preferred, because you may have them

of any length, and they are made more true, and are stronger: the rods made to pass for walking-canes seldom exceed twelve feet, which is, generally speaking, too short: those made of bamboo cane are best for general fishing, having several tops of various strengths; but the rods made of the white cane are much superior for fine fishing, particularly for roach, being very light in weight, but stiff. In choosing a rod, observe that it is perfectly straight when all the joints are put together, and that it gradually tapers from the butt to the top, and is eighteen feet long; if longer, they seldom play true;—some strong, and fit for trolling; others for barbel, perch, &c. and some finer, for roach, &c. all of which should have rings in every joint. Rods fitted with several tops, all packing together, are certainly very convenient, when on a distant journey; but the angler who wishes to have rods neat, and to be depended on, must keep one for trolling; another for barbel, perch, or other heavy fish; and also a fine light cane rod, for roach and small fish, as well as those for fly-fishing. A good trolling-rod should be made of the choicest stout and well-seasoned bamboo cane; in length, it should not be shorter than fourteen feet; but sixteen is more desirable, if your tackle-maker can furnish cane every way fit for the purpose of striking true, and not too heavy, yet sufficiently strong; but if bamboo of a sufficient length, &c. is not to be procured, the tackle-makers use other light wood for the butt, generally well-seasoned willow: those anglers who are indifferent about the weight of a rod, may have them made of solid wood, in four joints, each measuring nearly a yard and half: such trolling-rods will almost last for ever. When trolling with the gorge or live-bait fishing, a long rod is necessary to enable the angler to drop in his baited hook over high sags, rushes, &c.; and also if the water be bright, he should then keep as far away from it as he possibly can, which a long rod enables him to do while dipping, casting or spinning his bait; for, if either a jack or pike see him, it is very rare indeed that he will then take the bait: and again, with a long rod you will be able to drop your baited hook in some very likely place for jack or pike to lay, such as a small hole, division, or clear place among a bed of weeds, in a river, or any other water where there are many weeds; but if your rod be too short for that purpose, your baited hook frequently falls short when cast, or among the weeds, in-

stead of the open place which you desire or wish it to fall into: in such case jack or pike are alarmed, and your chance of getting a run (a run in jack and pike-fishing is a bite) is lost; and frequently the bait is spoiled, or much injured, by catching or hanging to the weeds: you then have to bait your hook afresh, losing time, &c.—from which mishaps you are, perchance, sometimes near losing your temper, forgetting that hope and patience support the fisherman. There is some difference of opinion among anglers about the number of rings necessary for trolling-rods; those who have their line on a thumb-winder, or on a bank-runner, seldom place more than two or three rings on their rod, and others have only one large ring at the top; but if a winch is used, there should be a ring to every joint except the butt; that is, fasten the winch to the butt about a foot from the bottom, and let that joint be without a ring, and all the other joints except the top to have a ring, each made of double brass wire, fixed so as always to stand out, and nearly large enough to admit the top of your little finger; the top joint should have two rings, the top one nearly three times the size of the others: this prevents any obstruction to the line running, which is of material consequence. I have two tops to my trolling-rod, which I always carry with me, in case of breaking one, &c.: one is made very flexible, with wood, and a whale-bone tip about two feet long: to this, for strength and security, I have a ring on the wood part, as well as the large one at the whale-bone tip: this top I always use when trolling with the gorge bait, or when fishing with the live bait: the other top is made wholly of stout whale-bone, about one foot long; this I only use when snap-fishing, which it is well calculated for by its superior strength and stiffness. Those anglers who may object to have such large rings as I have described fastened on their rods so as always to stand out, instead of laying close to the rod, because they prevent the several joints packing one within another, and in consequence augment the bulk to be carried going to and from trolling, can have such rings, if they prefer them to those which lay close, fixed to metal ferules, made to fit each joint of the rod, which they may carry in their pocket, and put them on or off at the commencement and leaving off trolling or jack-fishing, excepting the top joint, which, with the rings on, will pack in the butt or largest joint of the trolling-rod; or, by using

such rings and ferrels, a roach rod may be used for trolling, leaving out the weak top joint; some anglers use a few small brass curtain rings sewed to loops of leather, and pass the loop over each joint of a stout walking cane rod, made with long joints and without rings; the hanging outwards through which rings the trolling line runs: these leather loops are made in a similar manner to those which you may see in the fishing tackle shops, passed over as the means of keeping together several joints of hazel and other common fishing rods: some few anglers troll without a rod, only using a poll, or a stick with a forked top; they carry their line on a bank runner, or a hand winder; after baiting the hook and letting out a proper length of line, they then pass the fork of the stick or poll under the line about a yard above the baited hook, and cast out in search, and occasionally use the said fork, to hoist the line over, &c. the high sags, rushes, or whatever else may impede their progress. This mode of jack or pike fishing can be resorted to by an angler who may be at a water which promises sport, and he, unfortunately, is without a proper rod; unless this happens, I think few anglers would so troll or fish for jack or pike.

If you should have the misfortune to break your rod while fishing, repair it in the following manner:—cut the broken ends with a slope, so that they may lay smooth and close together, then bind them together with some strong silk or twine waxed with shoemaker's wax, or you may use wax ends such as cobblers mend shoes with; begin to bind the fractured parts together about two inches above the middle of the fracture, then whip or bind back again to the part at which you began; now bind or whip down again, keeping the lapping close together until you come within four or five turns of the two inches below the middle of the fracture; now lay the forefingers of your left hand over the rods, then with your right hand make four or five bows or hoops over the finger of your left hand with the silk, or whatever you are mending the rod with, and pass the end of it between the under side of your left hand finger and the rod; now draw away gradually your left hand finger, and with your right hand finger and thumb take hold of the second from the top of the bows or hoops, and draw it tight, which will make the first bow or hoop lay close and secure over the broken rod; then draw the third, which will secure the second from breaking, and so on till all lays

smooth and close to the last turn; to fasten and fix which, take the end of the waxed silk or twine which lays under the bows or hoops just described, and draw it upwards till all lays smooth and tight; then cut off the spare part, and all will be fast and strong. This way of mending and fastening off, without tying, is called the hidden or invisible knot. If you mend a broken rod at home, spread a little softened shoemaker's wax on each slope of the broken rod, or glue them before you attempt to bind these sloping parts together, and it will increase the security of the broken parts; after which, varnish the whipping and lay them to dry, which will soon take place if good drying varnish is used. When you have occasion to mend a small joint of a rod, then a bodkin or a disgorging which does not require that the hooped whipping should be so large as if passed over the finger, and in consequence thereof, are, with less difficulty, drawn and confined to their proper places: when the bodkin or disgorging is used, you pass the waxed silk or twine through the eye of either of those instruments, which enables you to draw from under those bows or hoops, before described. This is the best way I can describe or direct the angler how to repair a broken rod; for, when at a distance from home, &c. he should be prepared to remedy such an accident.

LINES. Fishing lines are made of gut-twisted horse or cow hair, and single horse hair, also of silk and mohair, or of silk alone, either twisted or platted; those made of gut are the strongest, the twisted hair cheapest, and the single horse hair the finest: you may make a fine line having half single hair at bottom, the other part, two hairs twisted: the gut or silk-worm gut is made or manufactured from the intestines or gut of the silk-worm, and is the strongest substance, for its circumference, known by the angler, and makes a line superior to any thing else; the natural colour of which is better than much that is stained. The young angler will find a line of about four yards in length the most useful either to fish with or without a winch, as he must note that the line is unmanageable if longer than the rod: in shottig the line to sink the float, place them close together within three inches of the bottom loop of the line, to which loop fix the loop of the hair or gut that the hook is tied to, and always put one or two shot on them, above the middle, which will keep your bait down, and cause the whole to swim steady: how-

ever, when you make a line either of silk, gut, or hair, it always must be finest at bottom where the hook is fastened,—very gradually increasing in bulk or thickness to the top. Note, when you place shot on the line, do it with a pair of pliers, which is the best and easiest method; some fasten them with their teeth, but it is a bad practice, for they often bite the hair or gut through, which causes much delay and vexation, particularly if it happens when you are fishing. Many good fish are lost after they have been fairly hooked, by the hook breaking or straightening; therefore make it a rule to try the strength of your hooks before you tie them on, or use them, in the following manner:—hold the hook by the shank, and place the other end over a nail or staple that may be driven in a board, wall, or any other place, then pull strong with jerking: if the hook breaks, there is an end of the trial; if it bends a little and again recovers its shape, it may be used; but if it bends or nearly draws straight, it should be rejected, for you are as likely to lose a fish by the hook straightening as by its breaking: a real well-tempered hook will neither bend nor break: small hooks may be tried by holding one between the fore finger and thumb of each hand, by their shanks, and hooking the bended parts together, and pulling and jerking one against the other. Some anglers tie the line and the length which is fastened to the hook, together, instead of using loops, which is a neat way. Note, those who choose to twist their own lines may purchase machines for that purpose at all the principal fishing tackle shops, and receive information how to use them. In respect to the advantage arising from angling with lines made of single horse hair, and hooks tied to the same over those which are made of fine gut, some difference of opinion exists among anglers, the advocates for gut say, when it is equally fine and of the same colour as horse hair, it is not likely to alarm fish any more than horse hair, and being much stronger, it certainly deserves the preference. This seems plausible, but I know from practice, that fish may be taken, when angling, with a single hair line (especially roach) that will not touch the bait when offered with a gut line, though the line shall be as fine and of the same colour, &c. as the hair line. To ascertain the fact, I have several times taken off my hair line, when roach have been well on the feed, and put on one of gut; I could then hardly take a fish; again I changed for the hair line,

and had excellent sport:—such has invariably been the case with me, and many experienced anglers of my acquaintance; therefore, I should certainly recommend single hair to those who fish for roach, dace, bleak, and gudgeon; and assert, without fear of contradiction, they will kill nearly two to one to those who angle with gut, however fine; the only reason I can assign for this difference is, that gut ever retains a shining glossy appearance in the water; and also small beads or bladders of water hang around the gut, which increases its bulk while in the water, and probably creates alarm among fish. Trolling lines are made of silk, and also of silk and hair or mohair, of various lengths and strengths, by platting, spinning, or twisting several strands together. There are silk lines called India twist, sold at the fishing tackle shops, and at some of the china shops, and other shops in London. This India twist may be bought of any length and degree of strength and fineness, at something less per yard than what is manufactured in this country; but it is much inferior in strength and value, because it is full of gum when you first purchase it; and after some little wear and tear, the gum is gone, the line then soon untwists and becomes rotten, therefore very unfit for jack and pike fishing. The platted silk lines are the best for trolling, in every sense of the word; they are stronger than those which are twisted. Let the twisted be made wholly of silk, or silk and hair, or mohair. Platted silk lines are also less inclined to link or tangle, than the twisted, which every troller knows, is of some consequence. Therefore, my advice is to provide yourself with a platted silk line, the colour immaterial, made of about eight strands, and in length, from fifty to sixty yards. If you wish to make your line waterproof, dress it in the following manner:—lay the line in coils, in a large tumbler or basin, and pour as much cold drawn double boiled linseed oil on it as will cover the whole, let it lie a few minutes, then take the end last put in, and gradually draw all the line out of the tumbler or basin, and pass it through, or wipe it with a piece of woollen cloth or flannel, which will make the surface smooth, and the whole line will be alike saturated with the oil. Hang the line up, for a few days, in dry air, and it will then be fit for use. Note, some trollers think this dressing a line causes it sooner to rot; but I am not of that opinion; I find a line so dressed, is less likely

to tangle, or stick to the rod, than those without it; and, also, that the dressed line passes quicker through the rings when you make a cast, in consequence of its not imbibing much water, and from its being a little stiff.

TO FASTEN THE ROD TO THE LINE. Pass the loop of your line through the ring at the extremity of the top joint of your rod, carry it over the ferrule end, and then draw your line up to the top again; the loop will then be fast, and the line will hang from the above mentioned ring: you will then put the joints of your rod together, and the rod and line will be complete. Most experienced anglers keep about six or eight inches of fine silk line tied to the end of the top joint, and fasten the gut or hair line to the said six or eight inches of silk, by a draw loop knot; this is an excellent method, because the ring is apt to chafe gut or hair. When you have a winch on your rod to use running line, pass the said running line from the winch, through every ring on the rod, and pull about a yard of it through the top ring and fasten it with a draw loop knot to the line which has the float and hook to it: when you angle with running line for those fish that it is proper to strike the instant you perceive a bite, make a slip knot in the line, and put in the said knot a piece of thin stick, quill, or tough grass, about an inch long, to prevent the line running back on the rod, which it will do, especially if the wind is any way in your front; and by their hanging slack on the rod, prevents the hook from fixing firmly in the fish you strike: always keep your winch unlocked, because in the hurry of the moment, when you have struck a heavy fish, and the winch is locked, he generally breaks away before you can give line to prevent such an occurrence. I use only those winches which are made without locks or stops.

WINCHES. The best winches are those that fix in a groove, and are fastened with brass ferrules, made for the purpose, on the butt; because you can fasten such a winch to any sized joint; which is not the case with those with a hoop and a screw. Be sure to choose a multiplying winch, which will be found infinitely superior to a common one.

FLOATS. With regard to floats, it is of the first consequence that the angler should be acquainted with the floats proper for fishing in different waters, and for various kinds of fish; as more depends upon that part of his tackle, than inexperienced

or superficial observers imagine. I shall therefore request his attention while I point out those proper for the purpose:—

THE TIP CAPPED FLOAT. These floats are made of several pieces of quills, or of reed for the middle, and ivory or tortoiseshell at the top and bottom, and narrow at each end, gradually increasing in bulk or circumference to the middle; but those which are made thickest above the middle, nearest the top, I find, swim the steadiest, in blowing weather, against the stream, rough eddies, and at the tail of mills: these floats are fastened to the line with a cap at each end. Tip capped floats are superior to every other for angling in waters which are not very rapid, particularly in roach fishing, as the least movement or fine bite sinks it below the surface of the water. The tip capped float is also best for pond fishing for carp and tench; as it requires but few shot to sink, it consequently disturbs the water but little when cast in; which is of the first consideration, when angling for such shy or timid fish as carp, tench, or chub. Note, the caps which fix the line to the float are often rough at the edge, which chafes and weakens a fine line; therefore, make it a practice to examine and smooth them before you put them to use.

CORK FLOATS are generally made of quills at the top, with a piece of cork which is burned or bored through the middle, to admit the quill, and then filed or ground smooth, and painted; the bottom is plugged with wood and a ring to let the line pass through. The cork floats are well calculated to fish in heavy and rapid streams, as they require a great many shot to sink them; which weight of shot prevents the baited hook passing too quickly over the bottom of the place where you may be fishing; for, with a strong current or stream and a light float, the baited hook goes over the place you have ground-baited, before it reaches the bottom; consequently you lose the greatest chance of success from the float not sinking quickly. Cork floats are made of various sizes and shapes: instead of common quills, some introduce the quill of the porcupine, which makes an excellent strong float.

PLUGGED FLOATS. These kind of floats are the cheapest, and made of indifferent quills; some of them with one goose quill and a wooden plug at the bottom, from which they take their name; they are very apt to loosen by the plug coming out. These floats suit the young angler from their cheapness, and by being easily put on the

line, having a cap at the top, and a ring at the bottom; however the better informed angler objects to the ring at bottom, because it does not keep the line close to the float, and from the resistance or hindrance it makes in passing through the water, particularly when the fish bite fine; therefore, he always uses the tip-capped float in ponds or rivers, where the stream will admit, in preference to every other.

TO MAKE THE FLOAT STAND OR SWIM UPRIGHT IN THE WATER. Some shot must be put on the line, as directed in the next article; they are kept ready split for the purpose, at the tackle shops. To strengthen a quill float, and to prevent the line slipping after passing the line through the bottom cap, give it two or three twists round the body of the float before you fix the top cap to it.

TO TIE ON A HOOK. Hold the hook between the thumb and finger of your left hand, and whip round the shank from the bend of the hook to the top, some fine silk waxed with shoemaker's wax, then lay the hair or gut on it, and whip it over very close with the waxed silk, from the top of the shank till you come opposite the point of the hook, then draw the silk through the loop which is made by leaving it three turns slack, and cut off the spare silk. The knot used in making fishing lines is called a water-knot, which is made by passing the ends twice over and then drawing them tight—this knot will never draw or slip. To wax the fine silk used in whipping or tying on hooks requires some care, therefore take the following directions:—Get a piece of stout leather, such as the upper part of shoes or boots are made of, and lay some shoemaker's wax of the softest sort smoothly on it; then take three or four lengths of silk together and draw them over the wax with one hand, keeping your thumb of the other hand lightly pressed on the silk, the waxed leather lying or resting on the fingers of the same hand, until the whole is well coated with wax; then take each piece separately and draw it briskly between a piece of soft or wash leather, by which friction every part of the silk will be equally waxed and then fit for use.—Note, fine silk is not strong enough to be waxed singly, and it is a saving way after having waxed several lengths of silk together and separated them, to fix every one singly with a pin to a cushion, such as are made to screw on the edge of a work table; those cushions are to be bought at any toy shop. Twine may be waxed in single

threads the same way as practised by shoemakers or menders.

To bait a hook with a worm use the following method:—first, enter the point of the hook close to the top of the worm's head, and carry it carefully down to within a quarter of an inch of its tail; to do which you must gently squeeze or work the worm up the hook with your left thumb and finger, while with the right you are gradually working the hook downwards; the small lively piece of the worm at the point of the hook moving about will entice or attract fish; but note, if too much of the worm hangs loose, though it may entice fish to nibble, yet they will seldom take the whole in their mouth so as to enable the angler to hook them; on the contrary, he is frequently tantalized with a bite, and when he strikes finds part of the worm gone, the hook bared, and no fish: therefore, to bait a hook well with a worm is necessary to insure hitting a fish when you strike, and it consists in drawing the worm, without injuring it, quite over and up the shank of the hook, leaving only a small lively part of the tail below the point thereof. If you bait with half or a piece of worm, prefer the tail end, and enter the point of the hook into the top part of it and bring it down nearly to the end of the tail, leaving only a very small piece loose. But if you bait with two worms on a hook, draw the first up above the shank while you put the second on in the same manner as directed with one worm, but enter the hook near the tail of the second worm, then draw the first one down on the second over the shank of the hook, and all will be then well covered, and will be a very enticing bait for perch, carp, chub, barbel, and all large fish; but when angling for gudgeon or other small fish, half a red worm is sufficient, and the tail end is best; if blood worms are used put on two or three, in doing which be very tender or you will burst them.

WITH GENTLES. To bait a hook with a gentle, use this method:—enter the point of the hook into the gentle near either end, and bring it out at the other end, then draw the point back again just within the gentle enough to hide it: if you use more than one pursue the same method. This is the best way to bait with a gentle whose skin is something tough, especially in cold weather, by piercing the skin in the first instance; with striking fine (when a bite) your hook will enter sufficiently into the fish and secure it, and you do not risk breaking your line or the top

of the rod, which frequently happens by striking too hard.

WITH GREAVES. To bait a hook with greaves is as follows:—first select the whitest pieces from what you have soaked, and put four or five pieces on your hook, or as much as will cover it from the bend to and over the point; these pieces should be about half the size of a sixpence and put on the hook separately or one after the other, not a large piece doubled, as some indolent anglers do, for then the hook is prevented entering firmly the fish you strike; whereas, by putting the pieces on separately, when you strike they either break off or are pushed up the shank, and the whole bend of the hook enters the fish, and you have firm hold. These minutiae of baiting, &c. are of singular advantage, which the observing angler will not fail to attend to and appreciate, being worthy of his notice. Note: it is a bad practice to boil greaves or soak them in boiling water, for it makes them rotten and soon fall off the hook: they are longer in soaking in cold or cool water, but are then tough.

LANDING HOOK AND LANDING NET.—The landing hook is a large hook which is sometimes barbed like a fish hook and sometimes plain, fastened on the end of a rod; this rod is occasionally composed of several pieces which run one within another like a telescope, from which the apparatus is called a telescope handled landing hook. A landing net is small like a purse net, mounted on an iron ring, which is fastened like the landing hook on the end of a rod or pole.

PLUMMET. Plummetts are of two kinds, either the common plummet, or the folding plummet.

PLUMMING THE DEPTH is done in the following manner:—if a ring plummet, pass the hook through the end, fix the point into the cork at the bottom; if a folding plummet, unfold about two inches of it, pass the hook over its side, and then fold the plummet up again; your hook is now secured from drawing away from the plummet: as success depends much in angling at a proper depth, take due pains, and measure the depth accordingly before you begin fishing. Note: when the plumb lead touches the bottom, and the top of the float is even with the surface of the water you have the true depth.

BAITING NEEDLE. The baiting needle, for putting on dead baits for trolling, &c.

DISGORGER. The disgorgers are an instrument with a forked top about six

inches long, made of bone, iron, or brass. When the fish has swallowed the hook, the forked end of the disgorgers is thrust down upon it with one hand, while you hold the line tight with the other, which disengages the hook, and permits it to be easily drawn out. This is the safest way to unhook a fish that has gorged the bait, or got the hook fixed in its throat, because by using violence with the thumb and finger to disengage it, you sometimes break a fine or small hook either at the point, barb, or shank, which causes loss of time and much vexation, in having another hook to put on, to plumb the depth again, &c. which is all absolutely necessary to be done, or you may as well give over fishing. But when the fish is hooked through the lip, the angler has only to hold the fish steadily in one hand while with the other he carefully takes away the hook.

CLEARING RING—CLEARING LINE.—The clearing line is made of several yards of strong small cord, to the end of which is fastened a heavy ring of lead or brass; if the hook should get fast to a heavy weed, post, or any thing else, this ring is put over the rod and suffered to go down to the hook: hold the rod in your right hand, the top pointing downwards, and the clearing line in your left, letting the ring fall on the hook, which, from its weight, generally clears the hook from what it may have struck into: if not, hold the rod tight, and draw the line sideways and break away. In this case the angler seldom loses more than a hook, if he acts as above directed, but without the assistance of a clearing ring he frequently loses his float as well as hook and line, and sometimes breaks his top joint. The brass clearing rings are to be preferred, because they are jointed, and in consequence can be used when the angler has a winch in his rod, in which case the leaden ring could not be passed over the winch.—These useful articles to the angler are to be met with at the fishing tackle shops.

DRAG HOOK. The drag is a piece of iron with three or four stout wire hooks, without barbs, placed back to back, to which is fastened a long packthread line; this is used to draw away weeds that a heavy fish may have got himself or the line among, and also to recover any part of the tackle that may be entangled in weeds, or to take up night lines, trimmers, &c.

LIVE BAIT KETTLE. With regard to the live bait kettle, I prefer one of a long

square form to a round one, and have always mine japanned white inside and brown out, as the water is much less agitated in such a shaped kettle when you are carrying it than in a round one, and it is more convenient to carry or pack in a basket, &c. for a journey. To select my bait, instead of putting my hand among the fish, which not only frightens them, but by heating the water, makes them sickly and dull, I make use of a very small net, not much more than half the size of those used to take gold and silver fish out of globes; this net I carry very conveniently in my fish kettle, by having a piece of the lid cut away at one corner, where a few inches of the handle of the net projects.

INDIAN RUBBER is of use to rub lines when they become chafed and ragged, as it immediately makes them smooth; by rubbing gut or hair, which has laid in coils, with Indian rubber, it will instantly become straight.

BANK RUNNER. The bank runner is mostly used in the day time while the angler is fishing for roach, barbel, &c. and is stuck in the bank, the bottom being strong turned wood sharpened for the purpose, with a winder at top for the line, which should be from sixteen to twenty feet long, made of silk trolling line, thin cord, or platted Dutch twine; but you must have a cork and bullet to the line, and bait with a live fish, which should swim a foot or two from the ground, as it will by the aid of the cork.

When you use the rod, hold the line with your left hand, and with your right pass the forked end under the line just above the bullet; you may then place the baited hook in the water where you please by a jerk of the rod; at the same time letting the line go from the left hand.

MAN OF WAR TRIMMER, called also a foxhound, is made of a large piece of flat cork, about five or six inches in diameter, with a groove to admit the line, which is the same as that used for the bank runner; it is, however, without a cork, and sometimes without a bullet, according to circumstances.

The hook is baited with a gudgeon, roach, or some small fish; you then draw as much line out as admits the bait to hang about a foot from the bottom. There is a small slit in the cork or in the peg which is sometimes thrust through it, that you pass the line in to prevent its unwinding; as soon as a fish seizes the bait,

the line loosens and runs from the groove of the cork freely, and allows the fish to return to his haunt and paunch at leisure.

THUMB WINDER. Thumb winders are sometimes used instead of winches, but they are extremely inconvenient.

ANGUELLES. Small worms thrown up by sick hawks.

ANIMAL. All bodies endowed with life and with spontaneous motion are called animals. Hence are animals distinguished in general from vegetables. But this gives us no perfect definition; for there are entire classes of animals which are fixed to a place; as the lythophytes, and zoophytes, which are produced and die upon the same spot; and, on the other hand, certain vegetables have as much motion in their leaves and flowers as certain animals; for example, shell-worms. However, by attending to the most general characters, we may define animals to be bodies endued with sensation and motion, necessary to preserve their life. They are all capable of reproducing their like: some, by the union of the two sexes, produce small living creatures; others lay eggs, which require a due temperature to produce young: and some multiply without a conjunction of sexes.

ANISEEDS. This seed is much used as a stimulant and cordial in horse medicine. When reduced to powder, it forms a principal ingredient in the formation of the pectoral cordial-balls for horses; they are generally mixed with ginger, caraway-seeds, &c. They yield by expression an aromatic essential oil, which contains all the medical virtues of the seeds. When the oil is used, the dose is about half-a-drachm, which may be given in warm ale, rubbed down in a mortar with sugar.

ANODYNES. Medicines that alleviate or remove pain, the principal of which is opium. Hemlock, deadly nightshade, henbane, and belladonna, possess also anodyne qualities, but are much less certain in their effect than opium. When pain depends upon spasm, as in the flatulent or spasmodic colic, which is commonly called gripes or fret in horses, these are excellent remedies. But pain often depends on inflammation or obstruction in the bowels or other passages; and in such cases anodynes or narcotics are injurious, and should never be given to the horse. Anodyne fomentations are sometimes used, which consist chiefly of a decoction of white poppy-heads.

ANTÆUS, bay, bred by Mr. Cornforth, 1789, got by Phlegon out of Jacintha by Cornforth's Forester, out of bay Babra-

ham, the dam of Johnny. In 1793, he won £50 at Newcastle; 1794, the King's plates at Newcastle and York. Antæus was sire of Wrestler, &c.; he was sent to Russia.

ANTELOPE. The different species of this animal, which are all included under one general name, are chiefly found in the hottest parts of the world. Like the goat tribes, antelopes have hollow horns, which they never shed, forming, thereby, a strong mark of distinction between them and the deer tribe, which they greatly resemble in the elegance of their form and the swiftness of their motions.

Of all animals, the antelope, or as it is called in the east, the gazelle, has the most beautiful eye; and the oriental poets continually compare the eyes of the ladies they wish to celebrate, with the eyes of this animal.

Antelopes are generally found in large herds, sometimes amounting to two or three thousand, preferring hilly countries; and such is their extraordinary swiftness, that the fleetest greyhounds are unequal to the chase.

Mr. Johnson, in his Sketches of the field sports practised by the natives of India, gives the following method of taking antelopes with the *cheetah*, or hunting leopard. "It is distressing to see them (*the cheetahs*) catch the deer; they are led out in chains, with blinds over their eyes; and sometimes they are carried out in carts; and whenever antelopes, or other deer, are seen on a plain, should any one of them be separated from the rest, the *cheetah's* head is brought to face it, the blinds removed, and the chain taken off.

"He immediately crouches, and creeps along, with his belly almost touching the ground, until he gets within a short distance of the deer, who, although seeing him approach, appears fascinated, and seldom attempts to run away. The *cheetah* then makes a few surprising springs, and seizes him by the neck. If many deer are near each other, they often escape by flight, their numbers, I imagine, giving them confidence, and preventing their feeling the full force of that fascination, which, to a single deer, produces a sort of panic, and appears to divest him of the power, or even inclination, to run away or make any resistance. It is clear that they must always catch them by stealth, or in the manner I have described, for they are not so swift even as common deer.

"Antelopes are the swiftest of all deer. The keeper carries with him some carrion, commonly bullock's liver, which he gives the *cheetahs* when they have caught a deer, to induce them to surrender it. They are then allowed to satisfy their hunger, and are again blinded and chained. I believe they seldom, if ever, kill more than one deer with each *cheetah* on the same day. Two are often loosened after the same deer, but more frequently after two, or a herd."

Among the Persians, falcons are trained up to hunt the antelope, having the stuffed skin or figure of that animal, on whose nose they constantly feed the falcons. Having spied an antelope, they let fly two of these falcons, one of which fastens just upon the nose of the creature, who endeavours to shake off his enemy, whilst the bird flutters to keep his hold, which hinders the antelope from seeing well before him. If, however, he happens to disengage himself from his first assailant, the other falcon immediately stoops, and supplies his place, whilst the one that the antelope has thrown off hovers over him, ready to fill his companion's place, should the animal get rid of him also. In this manner they harass the poor creature, and impede its running, till the dogs overtake it.

ANTELOPE was got by Croft's Brilliant, dam by Bumper, grandam by a son of Bartlett's Childers, great-grandam by the Chesnut Litton Arabian, great-great-grandam by King William's white Barb called Chillaby, great-great-great-grandam by the Byerley Turk, out of the Farmer mare. Antelope, at three years old, won a match at Epsom; at four years, he won the four-year-old plate at Canterbury; at five years, he won the King's plates at Burford and Lichfield; at six years, the King's plates at Guildford, Winchester, Lewes, and Salisbury; at seven, he beat Mr. Croft's Tortoise, giving him 14 lbs., at Oxford. Antelope was foaled in 1760; he was fifteen hands and a half high; he covered at Newmarket at three guineas.

ANTHELMINTICS. Those medicines which remove or destroy worms of the intestines are so called. Both the stomach and intestines of horses are liable to be infested with different kinds of worms; for these the same plan of treatment is proper, whatever kind of worms they may be. Mercurial purgatives are the most certain anthelmintics. Oil of turpentine has been recommended as an

anthelmintic, and has been found very efficacious.

ANTICOR. A disease of the horse, very differently described by various authors; indeed, they seem to have applied the name to different diseases. They all seem to agree in the propriety of bleeding the horse freely, and giving opening medicine. "It is known," says Solleysel, "by a swelling in the breast just opposite to the heart, from whence the word anticor (*anticœur*) is derived."

ANTIDOTE. Those medicines that destroy or prevent the effects of poison are so called. When a horse has been maliciously poisoned by arsenic, or corrosive sublimate, a solution of soap in some mucilaginous fluid, such as infusion of linseed, should be given freely; oil and salt of tartar are recommended also, and the sulphuret of potash.

ANTIEN PISTOL, bay, bred by Lord Grosvenor in 1764, got by Snap out of Eloisa, by Regulus; grandam (own sister to the grandam of Elfrida) by Bartlett's Childers. In 1769, Antient Pistol won the 1200 guineas sweepstakes, at Newmarket: in 1770, his lordship disposed of him to Mr. Parker, in whose possession he was a winner of 150 guineas and £50 at Wells, and £50 at Bath. Antient Pistol covered in Devonshire at ten guineas; he was sire of Cinder-Wench, Nannette, Yarico, Pistol, Arbitrator, Index, Reptile, Allegrante, Lucifer, Culverin, Milo, Hardwicke, Squib, Julat, Old-Port, &c. &c.

ANTIMONY. A medicine much used in farriery. The term antimony was formerly given to an ore, in which antimony was combined with sulphur; but it is now solely appropriated to express the pure metal. It is found in various parts of the world in different states of combination. There are several preparations of antimony, the most useful of which are the tartarized antimony or tartar emetic, antimonial powder, and the sulphuret of antimony. Tartarized antimony is preferable to every other preparation, as a fever medicine; and though it is a strong emetic in the human stomach, yet it does not even appear to excite nausea or sickness in the horse; it is with that animal a safe and effectual fever medicine, in doses of from one to two or three drachms. Butter of antimony, now called muriate of antimony, is a fluid preparation, which is often employed as a caustic in foul ulcers, such as canker, quittor, and farcy buds. The sulphuret of antimony is given to the

horse as an alternative, to improve the coat and condition. The common dose is an ounce or more.

ANTINOUS, chesnut, bred by the Duke of Grafton, in 1758, was got by Blank, dam (sister to the Widdrington mare) by Partner; grandam by Bloody Buttocks. In 1762, Antinous won the King's plate at Ipswich: in 1763, a sweepstakes of 1200 guineas at Newmarket: in 1764, Antinous beat the Duke of Cumberland's Gift over the B. C. 600 guineas, and received 50 guineas forfeit from Mr. Pratt: 1765, he won 500 guineas, beating Sir John Moore's Fryar, Newmarket B. C.; and the great subscription at York, beating Le Sang, Engineer, and three others: 1766, a sweepstakes of 1500 guineas, at Newmarket, beating Askham and Prospero; at starting, three to one on Askham; 1767, thrice 500 guineas at Newmarket. Antinous covered at Euston, at ten guineas; he was sire of Euston, Hy-las, Skipjack, Abelard, Duke, Sweet-William, Tickler, Leap-Frog, Tell-Tale, Duchess, Nun, Searcher, &c. &c.

ANTIPLHLOGISTICS. This term is applied to those medicines that cure inflammatory complaints, to which almost all the diseases of the horse are allied; it signifies also any general mode of treatment or regimen, that is calculated to cure inflammation. Antiphlogistic remedies, properly so called, are divided into general, by which are meant such as affect the whole system, and into topical, the operation of which is, at least for a certain time, entirely local and circumscribed.

ANTISEPTICS. Remedies supposed to have the virtue of resisting the tendency to putrefaction. The most efficacious in veterinary practice are bark, opium, camphor, ammonia, wine, and yeast. As external applications in gangrene or mortification, the fermenting poultice, and the common poultice with powdered charcoal sprinkled over it, have been very strongly recommended by some of our best authorities.

ANTISPASMODICS are medicines which possess the power of curing those diseases which depend upon spasmodic or convulsive action of any part of the body; of these, locked jaw is one of the most formidable. Opium, musk, camphor, and all the vegetable narcotics, have been given to the horse as antispasmodics. The spasmodic complaint to which horses are most liable, is the flatulent colic, commonly called fret or gripes, in which opium is the most useful remedy; it is generally

combined with other medicines, as assa-fœtida, camphor, the oil of peppermint, juniper, &c. &c., and is most efficacious in the form of a tincture, made by infusing the ingredients you use in proof spirits of wine.

ANTLERS, now generally understood to be the entire horns of either the red or fallow deer, was formerly applied to the *starts* or *branches* of a deer's horn, being divided into *brow antler*, which was the branch next the head, and *bes antler*, which signified the one immediately above the *brow antler*.

ANVIL, by Herod, dam by Feather, grandam by Lath, great-grandam by Childers. In 1781, at Newmarket second spring meeting, he beat Rosemary, R. M. 100 guineas; same meeting he beat Tetotum, R. M. 100 guineas; at Epsom he won the Ladies' plate; at Exeter, the great subscription for all ages (33 subscribers); and walked over for an all-aged sweepstakes at Bath. At Newmarket, 1782, first spring meeting, Anvil won £50, beating Boudron and four others; at Exeter he won the great subscription for all ages; at Blandford he won £50, beating Sulphur and three others. At Newmarket first spring meeting, 1783, he beat Buccaneer, B. C., 200 guineas; in the second spring meeting he won a sweepstakes of 200 guineas B. C., beating Boxer and Pot-8-os; he won the King's plate at Winchester, beating Mercury and Diomed, and next day walked over for an all-aged sweepstakes (seven subscribers); at Newmarket second October meeting, he won the whip and 600 guineas, beating Guildford and Boudron, 10 stone each, B. C. In the second spring meeting, 1784, at Newmarket, he beat Mercury, B. C. 300 guineas: in the second October meeting he won 60 guineas for all ages, D. I., beating Drone, Fortitude, and two others. At Newmarket, 1785, first spring meeting, he received 90 guineas compromise from Buzaglo, A. F. 200 guineas half-forfeit; in the same meeting he received forfeit from Premier and Cantator, D. I. 200 guineas half-forfeit; in the second spring meeting, carrying 8 st. 11 lbs., he beat Challenger, 7 st. 10 lbs. B. C. 200 guineas; in the first October meeting, he received forfeit from Signor, B. C. 200 guineas half-forfeit. Anvil was sire of St. George, Cymbeline, Mother Blackcap, Anvilina, Lisette, Sledge, Mother Shipton, Scotilla, &c. &c. He covered at Cannons, at ten guineas.

APERIENTS are medicines which mildly empty the intestines of their con-

tents, without producing the strong and repeated effects of physic given with an intention to purge. Small doses of aloes, the olive or linseed oil, neutral salts, as Epsom or Glauber's salts, are the medicines generally employed by the veterinary practitioner for this purpose.

APOLLO, bay, was bred by C. Routh, Esq., 1755, who sold him to Mr. Shafto. Apollo was got by Regulus, dam by Cottingham, grandam by Snake, great-grandam by the bald galloway. At four years old he won the great sweepstakes at Huntingdon; at five he beat the Duke of Cumberland's Dapper, for 500 guineas, won £50 at Ipswich and Huntingdon, and the King's plate at Burford; at six years he won the King's plates at Winchester, Salisbury, Lewes, Lincoln, and in the spring following at Newmarket. Apollo covered in Sussex at three guineas: he was fifteen hands high: he also ran and covered in Ireland.

APOPLEXY, in horses, is a paralytic affection of the brain, in which the horse generally drops down suddenly without sense or motion, except a working of his flanks. It seems to be caused either by too much blood being sent to the brain, or by a rupture of a blood-vessel in that organ; and bleeding is, therefore, the most essential remedy, along with purging medicines.

APOSTHUME (in hawks). A disease in the head, attended with swellings, and which is occasioned by the heat of the head, and various ill humours. It may be discovered by the swelling of the eyes, by the moisture that issues from their ears, and by the bird's slothfulness; for the cure of which, give a pill of butter the size of a nut, well washed with rose-water, and mixed with honey of roses and fine sugar, for three or four mornings, when they have meat: they must be held on the fist till they have made one or two mutes; then take four drachms of the seed of rue, two drachms of hepatic aloes, and one scruple of saffron; reduce all to fine powder, and mix with honey of roses, and make into a pill, which must be given them: it will purge, and scour their heads. About two hours after, give them some good strong hot meat. When the nares of a hawk are stuffed up with filth, after a convenient scouring, take pepper and mustard-seed beaten to a fine powder, put it into a linen cloth, and steep it for some time in strong white-wine vinegar, of which put some drops upon her nares, and they will soon cleanse her head.

APPETITE. Want or loss of appetite may arise either from fatigue, from overwork, or it may be the consequence of disease or fever, or from a diseased state of the digestive organs of the horse. If it depend upon fatigue, rest, a cordial ball, and warm mashes, will soon restore the stomach to its usual state. If it be the consequence of disease, the particular disease must be overcome before the horse can be expected to have his accustomed appetite. The treatment then will of course depend upon the nature of his complaint. Horses have sometimes an excessive or craving appetite; they will even eat their litter, besides an unusual quantity of whatever food is given to them. This may justly be considered a disease, and one of importance; for, unless restrained, it often causes incurable cough, roaring, broken wind, and many other diseases. A horse of this kind should wear a muzzle constantly, except when he is feeding; he should only be allowed a proper quantity of food, at first rather more than another horse; his allowance of water also should be moderate. The only medicines likely to be of any service in this case are purgatives.

APPLEGARTH, chesnut, bred by Mr. Lidderdale in 1795; got by Stride, out of Emma, by Telemachus; grandam, A-la-Grecque, by Regulus; great-grandam by Allworthy; great-great-grandam by the Bolton Starling; great-great-great-grandam, Dairy-Maid by Bloody-Buttocks; great-great-great-great-grandam, Bay Brockelsby by Old Partner; great-great-great-great-grandam, Brockelsby by Greyhound out of Brockelsby Betty. In 1798, Applegarth won £50 at Penrith; 1799, £50 at Catterick, the King's plate, and 50 guineas at Edinburgh; 1800, £50 at Newcastle, £50 at Morpeth, and the King's plate at Carlisle; 1801, £50 at Carlisle; 1802, the Maccaroni stakes at Newcastle, and the King's plate at Hamilton; 1803, 100 guineas at Ayr. Applegarth served mares afterwards in Berkshire at three guineas; his charge after the second season was five guineas.

APPROACHING (in wild fowl shooting) was a device employed, to approach such birds as frequent waters and marshy places, and which are, for the most part, very difficult to reach. Various means have been employed for the purpose, one of which was, three hoops tied together, all at proper distances, according to the height of the man who was to use the in-

strument, and having boughs tied all round it, and with cords to bear on his shoulders, so that the person was thus concealed by the boughs, and was able to approach till he came within gun-shot. The figure of a horse was also used for this purpose, as well as several other devices, all of which appear to be laid aside, and aquatic fowls are rather waited for by the shooter, than any approach made towards them. Thus as it is very well known, that geese, ducks, teal, &c. leave the water, and fly to feed both morning and evening, the fowler places himself in a situation where he expects them to pass, and shoots as often as an opportunity offers. It sometimes happens that ten or a dozen shots will be presented in the course of an evening. Moonlight nights are of course the best for this amusement, as the birds continue to fly for some time after night-fall, and the diversion is consequently prolonged. Men well practised in this nocturnal shooting frequently become very dexterous, and will kill birds by moonlight with tolerable certainty; and even when the nights are quite dark, they will direct their aim by the sound of the bird's wings, and frequently effect their object. This, however, is a department of the chase very little attended to by sportsmen, as it is very chilly diversion, after all, and is principally followed by the peasantry who reside on the borders of the lakes and marshes, and obtain a precarious livelihood by it. But these fowlers resort to other modes of procuring their game, and by means of snares contrive to catch more than they are able to shoot with the gun. In very severe and long frosts, when the lakes and marshes are frozen, and aquatic birds resort to the larger rivers, they may be successfully approached by concealment in any manner, so as to resemble objects which are constantly passing before their eyes. Thus, on the River Dee, during the severe winter of 1822-3, a person so contrived a small boat in which he concealed himself, as to represent the floating ice and snow that was continually passing down the river. In this vehicle he also contrived to mount an enormous fowling-piece, by which, on approaching a flock of ducks, he was able to kill from a dozen to a score at one discharge.

APRIL. The month of April is extremely dull in regard to every branch of field-sports, except angling and otter-hunting, which latter generally begins this month. The various occurrences, &c.

A P R

which may happen to be interesting to the sportsman in this month, we have attempted to arrange: the arrival of migratory birds, however, as well as other circumstances, will depend, in some degree, upon the forwardness or backwardness of the season. It is by observing the relation which one period bears to another that this arrangement will be found useful, as for instance—in about a week after you hear snipes piping and bleating, you may know that badgers have young; and that the stone curlew has arrived, when you see the house swallow, white throat, or red-start.

Fish for chub with red worms.

Fish for bleak, with small worms, paste, and gentles.

Otter hunting begins this month, if the weather be sufficiently warm.

Golden plovers resort to the high and heathy mountains of the north of England and of Scotland.

The pope and gudgeon spawn first time; bait with blood worms or gentles.

Badgers bring forth.

Dace spawn; fish with red worms, paste, or small flies.

During this month, martens, polecats, and other vermin of the weasel tribe, make considerable havoc among the game by destroying their eggs, or even the old birds, whilst sitting: these animals bring forth this month.

Fish for barbel with red worms, greaves, or gentles.

Curlews resort to the heathy, boggy, upland moors, where they breed, losing their fishy taste, and becoming well flavoured.

Pike not in season this month.

Godwits haunt the fens.

Rove for perch with brandling or minnow.

Stone curlew arrives; found on downs, sheep-walks, and dry stony places.

Fish for roach and rudd with worms, cad-bait, and gentles.

The house swallow, redstart, and white-throat, return.

Fish for carp and bream with red worms or blood worms.

Quails and land rails appear.

Bucks begin to shed their horns.

Begin to fish for tench; bait with blood worm or red worms.

The martin returns.

Fish for trout and grayling, with hackles, palmers, dark brown, bright brown, blue dun, whirling dun, cow dung, oak or ash fly, and horse fly; for trout with minnows or worms.

A R C

Salmon now in season; fish with any large showy fly.

Fieldfare and redwing leave the country for the most part earlier.

Bitterns lay; also lapwings.

Foxes bring forth.

Hawks, crows, and magpies, may be readily destroyed, either by smearing bird lime round the nest, or by small pieces of poisoned meat.

The woodcock and royston crow depart, most of which leave this country at an earlier period.

Red grouse lay and sit, generally from eight to twelve eggs.

With this month gamekeepers should leave off breaking dogs, lest the birds be disturbed, and the breeding injured.

The roe (female of the roe-buck) fawns.

AQUATIC. That lives, breeds, or grows in or about the water, as *aquatic plants*, *aquatic birds*, &c.

AQUATICS. A term applied to any amusement or exercise on the water, as rowing, sailing, boat-races.

ARABIC, GUM, is given to horses, dissolved in water, in painful affections of the urinary organs, and to sheath and protect the bowels, when they have been disordered by too strong a dose of physic.

ARCHERY. Our ancestors used the bow for a double purpose; in time of war it was a dreadful instrument of slaughter; and in peace an object of amusement.—That both the anglo Saxons and the Danes were well acquainted with its use is certain, as the Scandinavian writers, when praising the heroes of their country enumerate among their acquirements a superiority of skill in handling the bow.—Among the Saxons and the Danes, however, it seems only to have been used for the purposes of food or pastime; and we are perhaps indebted to the Norman Conquest for its introduction as a military weapon.

The first thing to be learnt is to bend and unbend the bow, as it is sometimes broken by beginners who attempt to string it without having learnt the proper method. Before, however, we proceed in our directions for doing this, we must give a few definitions of the different parts of the bow.

The flat part of the bow is the *outside*, and is called the *back*.

The round part is the inside, and is called the belly. The two extremities of the bow are called the horns, the *longest*



of which is at the *top* end of the bow, and the shortest at the *bottom*: the notches or grooves in the horns, and in which the string is placed, are called the *nocks*, being always spelt and pronounced that way in every thing relating to archery, and not notches. Remember that the round part or belly of the bow must always be bent inwards, for if you bend it the other way, that is, with the flat part or back inwards, it will instantly break.

TO BEND OR STRING THE BOW. To bend the bow you must take it by the *handle* and no other part (the handle is the centre of the bow, which is generally covered with cloth or silk shag), with the flat part or back towards you, the right wrist resting against your side, the lower end of the bow resting against the inside of the right foot, the toe of which ought to be turned a little inwards to prevent its slipping, the left foot being brought nearly a yard forward with the knee straight, though the knee of the right leg may be somewhat bent. You must now place the centre of the hand close to the wrist below the eye of the string, having the tip of the thumb on one edge of the bow, and the side of a knuckle of the fore finger on the other. When the hand is placed in the above position, pull up the bow briskly with the right hand, and press the upper part down with the left, sliding the wrist at the same time upwards towards the horn, till the eye of the string fall into the nock before the left hand is removed; take care and be certain that the string be well in the nock. Remember to press the finger and thumb somewhat firmly upon the edges of the bow, which will prevent the string from getting under them, a thing which often happens, and renders the stringing difficult.

Should the archer find himself not strong enough to bend his bow *alone*, he will, by the assistance of another person, be able to string it with ease, if that person places his finger on the top horn and bends it down whilst the archer carries the string upwards into the nock, holding the bow as before directed.

TO UNSTRING OR UNBEND THE BOW.—Hold the bow in the same position as before directed; press down the upper limb with the left hand, and slip the eye of the string out of the nock with the fore finger and thumb.

We must caution the archer to be careful that the string is not twisted round the bow, and that the noose be in the centre

of the horn, before he attempt to bend it: he should also see that when bent, the string runs along the centre of the bow, from the middle of one horn to the middle of the other.

To determine whether the bow has the right degree of bend, place the first finger perpendicularly on the inside of the handle of the bow, raising up the thumb as high as it will reach: if the string touches the extremity of the thumb, the bow is bent a proper degree.

Having now described the best methods of bending and unbending the bow, we shall proceed on our instructions in the practice of archery, which, according to Ascham, may be divided into five parts, viz. *standing, nocking, drawing, holding, and loosing*; and which are generally known by the name of *Ascham's five points of archery*.

OF STANDING. By standing is meant the attitude an archer ought to put himself into when about to draw the bow.

In the first place, the archer should stand with his left side towards the mark; his feet flat and firm upon the ground, the heels being about six inches apart, and his left foot advanced a little before his right, with the weight of his body resting equally on both legs, and not more on one leg than another: his knees should be *straight*, not bent, his hams being extended but possessing an easy firmness: his body should be upright, with his neck a little bent downwards. The left hand, which holds the bow, must be held out quite straight, the surest way to do which is to turn the wrist in as much as possible; by this means, the bow being grasped firmly, but not too tightly. As the string, when loosed from the right hand, strikes against the left arm, an implement is made use of called a bracer.

In drawing the bow, the right arm is drawn towards the ear; this, however, belongs more properly to *Drawing*.

OF NOCKING. By nocking is meant merely the fitting or placing the arrow on the string of the bow. The centre of the string opposite the top of the handle of the bow is whipped with stout sewing silk, to prevent it from being fretted and worn by the nock of the arrow. It is on this part that the nock of the arrow is placed previous to its being drawn, so that no difficulty can possibly arise.

The following directions for nocking, taken from Waring's treatise on archery, will assist the learner:—Hold the bow by the handle, in a horizontal position, with

the string upwards. Draw the arrow from the pouch, holding it by the middle. Carry the arrow under the string and to the left of the bow, holding it still by the middle, till the pile reaches the right hand, the fore finger of which is thrown over it, whilst the left hand is drawn back to the nock: look for the *cock-feather*, which having found, the arrow is slidden down the bow and fitted upwards to that part of the string which is whipped with silk, taking care that the *cock-feather* stands *outwards from the bow*. The finger of the left hand is then removed and grasps the bow. In pulling up the string the thumb is not used: the two, or, by some, three first fingers, being all that are required, the arrow lying between the first and second. The string should be held between the tip of the fingers and the first joint.

OF DRAWING. Ascham observes that "drawing well is the best part of shooting, and it is better to draw to the ear than to the breast."

In drawing, Mr. Waring observes that, "as the left hand raises the bow, the right should begin to draw, so that when it is held up to its intended elevation, it should be above half drawn. It does not do to elevate the bow quite undrawn, for the right hand in reaching to the string, displaces the position of the body." It is the method of our best archers, as they raise the bow, to draw it three parts of the way, then pause to take aim, then draw it quite up to the head, and instantly loose; for it ought not to be kept on the full stretch more than a second or two for fear of breaking.

The archer should remember, that whether he be shooting at a short or a long distance, he ought always to draw the arrow to the head.

OF HOLDING. By holding is meant the holding the string when the arrow is drawn to the head. Ascham observes, that holding must not be long, for it puts a bow in danger of breaking, and also spoils the shoot: it must occupy so little time that it may be perceived better in the mind, when it is done, than seen with the eye when doing.

With regard to holding the bow itself, the perpendicular position is not only the most convenient, but is also the best for taking aim.

OF LOOSING. Loosing signifies the letting loose of the string; and, according to Ascham, must be performed much in the same manner as holding: so quick and

hard that it be without any twitches; so soft and gentle that the shaft fly not as if it was sent from a bow case. The mean betwixt both, which is perfect loosing, is not so hard to be followed in shooting, as it is to be described in teaching. For clean loosing you must be careful of not hitting any thing about you; and remember to hold your hand always the same height on your bow, that you may keep the length truly.

ROVING. By roving is meant the shooting at casual and unmeasured marks, such as trees, hillocks, stones, or any other object that may happen to appear. In this kind of shooting, a heavier arrow, called a *flight-arrow*, is used. Roving is sometimes practised at the butts instead of casual marks, the distances being changed every shot.

BUTT SHOOTING. Butts are made of sods laid one upon another, being in width about eight feet, and the height seven feet, growing narrower towards the top: the base is between three and four feet, and the top about one foot six inches thick. Butts are placed at various distances. Those erected by the Toxophilite Society are in sets; each set consisting of four, and each butt being thirty yards distant from the other; forming a chain of thirty, sixty, ninety, and one hundred and twenty yards, and disposed that they do not stand in the way of the archer when shooting at any of the lengths. Upon these butts (breast high, or about three feet and a half from the ground,) is placed the mark, which is a round piece of paper, fastened with a peg through the centre, being of smaller dimensions as the distances are shorter;—thus, for one hundred and twenty yards, the mark is sixteen inches in diameter; for ninety yards, twelve inches diameter; for sixty yards, six inches; and for thirty yards, four inches.

No shot is counted that does not hit the pasteboard, and he who hits it oftenest during the day is the winner: where two, however, reckon the same number, then he who is nearest the peg has the game: if it be doubtful which is the nearer, they shoot again, and he who hits nearest the mark, in any part of the butt, or if both miss the butt, he who shoots nearest to it is the winner. The same rule holds good in target shooting.

TARGET SHOOTING. Target shooting is generally one hundred yards, and fifty yards. Targets are made of oiled cloth, on which are described five circles, the

innermost being gold; the next red; then inner white; next black; then outer white; and lastly, green. This target, which is four feet in diameter, is sewed upon a bass, made of compressed straw, worked in the manner of a bee hive, which is supported by a stand or frame. Ladies' targets are considerably smaller.

For reckoning the numbers, two ways are used; one, by the mere number of hits, without regard to the circles; the other, by the hits as they approach the centre, counting nine for a hit in the gold; seven for a hit in the red; and so on—counting two less for every circle as it gets farther from the centre.

HOYLE SHOOTING is the same as roving; hoyle being a north country word for a hillock, tuft of thistles, mole hill, or any other little eminence.

FLIGHT SHOOTING is so called, the arrow being shot without any mark, the object being merely who can shoot his arrow the farthest.

CLOUT SHOOTING. The clout is a small white target, generally about twelve inches in diameter. It is fastened into a short upright stick, which is driven into the ground, somewhat obliquely, till the lower end of the clout touches, or nearly touches, the ground. It is but very seldom used at present.

ARM. Of a horse, so called, is properly the fore thigh, from the elbow immediately under the chest, to the knee.

ARROW. According to Ascham, an arrow or shaft is composed of three principal parts, viz. the *stele*, the *feather*, and the *head*. By the *stele* is meant the whole length of wood of which the arrow is made.

In modern archery five kinds of wood are commonly used in making the steles of arrows; these five are deal, asp, and arbele; which are light woods; and lime, and Jamaica lance-wood, which are heavy: to these may be added a kind of light wood, brought from Flanders, and which Mr. Roberts supposes to be poplar.

Ascham observes, that "a stele must be well seasoned, to prevent warping, and it must be made the same way the grain lies and as it grows, or else it will never fly clean.

The best length of arrow for a bow five feet eight inches long, is supposed to be twenty-seven inches, including the pile: of this length arrows are now made in England. For roving and shooting great lengths, it is customary to use an arrow twenty-eight, twenty-nine, or even thirty

inches, as the range and power of the drawing arm is considerably increased when the bow is much elevated.

The weight of arrows is generally proportioned to the distance to be shot; and in weighing them, silver money, at the mint standard weight, instead of pounds, ounces, &c. Arrows weigh from 3s. to 20s. though seldom shot with above six or seven.

Waring says, that arrows of any shape, if straight, will fly well at almost every distance within the power of the bow.—Many archers, however, differ in this respect, every shape having its advocates, and difference of opinion prevails even in the shape of the head, some maintaining that a blunt pile is best, and others the contrary. A blunt pile has this advantage, that when shot into the target frame it is more easily extracted.

By *breasted* or *high-chested* is meant a stele that is thickest in the middle and tapered off towards each end; which form is, by many, esteemed the best for any kind of shooting except very short lengths, or in a rough wind, as it floats longer in the air than one tapered or made heavy towards the pile. Ascham, speaking of piecing shafts, justly observes, that it is "more pleasant to the eye than profitable for use; as most arrows by piecing become somewhat sluggish, and lose a part of their former spirit: lime pieced with any hard wood, such as lance wood, makes a very good *roving* arrow.

The *nock* (which is that part of the arrow that rests against the string) is usually made of horn, or horn and wood, inserted into the end of the shaft, having a hollow to admit the string.

For the *feathers* of an arrow there is no other material besides a feather that will do for the purpose; as a feather is the only thing that will give place to the bow as it passes over it, and then rise up again to its original form. Ascham recommends the old goose feather for a wind or a dead shaft; a young goose feather for a swift shaft, and clipt somewhat high, as being weak, it will settle to a proper height.

Of late years, however, turkey feathers have come into use, as they are much stronger in their texture than goose feathers, and resist the wet better; they are also more beautiful in their colour and take a dye better.

The feathers of flight arrows are very short and low, being seldom longer than three inches, or higher than half an inch at the nock end.

The *head* of an arrow is the point, which, when not used for war, is termed a *pile*: this is usually made of iron, though the Flemish fletchers make some of horn, which answer very well. "Concerning heads for pucking, which is our purpose, there are various kinds, some being blunt, some sharp, and some both blunt and sharp; a blunt head in a calm or down a wind is very good—otherwise, none worse. Sharp heads at the end without any shoulders (I call that the shoulder in a head which a man's finger may feel before it comes to the point) will go quickly through." Mr. Roberts, in his English Bowman, observes, that "Ascham's observations that sharp heads pierce the wind better than blunt ones, deserves some consideration, and may require further experiment."

ARROW, barbed. A war-arrow having the head armed with barbs or wings (by the poets called beard.)

ARROW, bearing. An arrow which possesses a steady flight.

ARROW, bob-tailed. An arrow increasing in bulk, in a regular proportion, from the nock to the pile.

ARROW, breasted. An arrow which is largest in the middle; also termed *high chested*.

ARROW, broad. A war arrow with a flat barb, sometimes called a swallow-tailed arrow.

ARROW, bullet. An arrow made for throwing a bullet.

ARROW, fishing. An arrow made for striking fish.

ARROW, butt. An arrow used in shoot-at short butts.

ARROW, fluted. An arrow which is indented in lines to prevent its casting.

ARROW, rush-grown. An arrow formed like a rush.

ARROW, sheaf. The common war arrow, so called, because they were carried in certain quantities called sheafs.

ARROW, shot. An arrow used for casting small shot.

ARROW, taper-shaped. A rush-grown or bob-tailed arrow.

ARSENIC. This, though a violent poison to the human subject, may and often is given to the horse with perfect safety; it has been considered as a tonic. It is prudent to begin by giving the horse a small dose, as from two to eight grains. This may be gradually increased, and continued as long as there is occasion. It has been said to have cured the glanders, but on reviewing the experiments that

have been made with arsenic on glandered horses, it does not appear that it has ever done any good.

ARTERIES are the pulsating canals, conveying the blood from the heart to the extremities.

ARTERIOTOMY is the opening of an artery, for the purpose of taking away blood. This operation is performed only on the temporal artery of the horse; the pulsation of which, may be felt in the temple, about two inches from the outer corner of the eye; where it may be safely opened with a lancet. There is generally more difficulty in stopping the bleeding when you have taken away enough, than in opening the artery. The best method of stopping the bleeding is to make a complete division of the artery, the ends of it will then shrink within the cellular membrane, and the bleeding will very soon cease.

ASCARIDES. Small worms in the intestines of horses and other animals; they are chiefly confined to the rectum. See worms in horses.

ASHTON, b. bred by the Duke of Hamilton, in 1806; was got by Walnut, out of Miss Haworth, by Spadille, granddam by Clayhall Marske; great granddam, by Herod; great-great granddam by Goldfinder—Compton Barb—Vanessa by Regulus—Fox—Bloody Shouldered Arabian—Basset Arabian—Arabian mare. In 1809, Ashton won 240 guineas at York, the great St. Ledger and the Doncaster stakes at Doncaster: in 1811, one of the subscription purses at York. Ashton was the first produce of his dam, full 15 hands 2 inches high; and covered at Woodford, at ten guineas.

ASSASSIN, b. bred by Lord Egremont, 1779; got by Sweetbriar, out of Angelica, by Snap; grandam by Regulus;—Bartlett's Childers—Honeywood's Arabian—dam of the two True Blues. In 1781, Assassin beat the Duke of Grafton's Puzzle, a match at Newmarket, 100 guineas; in 1782, he won 140, 300, 300, 500, 100 guineas at Newmarket; and the Derby stakes at Epsom; in 1783 100, 150, 300, 500, and 50 guineas at Newmarket.

ASTRINGENTS are medicines that check morbid evacuations, as in diarrhoea, or purging, &c.; they are also used externally, as in grease; for internal use, extract of catechu, gum kino, and dragon's blood, are often employed; externally the preparations of lead and zinc, alum, &c. are generally preferred as astringents.

ATTACHMENTS (Court of) a ceremony or court peculiar to the laws of a

forest, and necessary to be known only to those who reside therein. The officers of this court do no more than receive the attachments of the foresters, and enrol them in the verderers' rolls, that they may be ready for the court of swainmote, when held. This court of attachments having no power to determine upon cases of offence or trespass, beyond the value of fourpence; all above that sum must appear in the verderers' rolls, and be sent by them to the court of swainmote, there to be tried according to the forest laws, which are replete with peculiar privileges, immunities, and what are termed royalties, appertaining to the crown itself.

ATTAINT. An old term given by farriers to wounds caused by the horse overreaching; that is, a wound in the heel or back part of the fore-leg, inflicted by the toe of the hind foot.

ATTIRE of a deer. Of a stag, if perfect, is called the burr; the pearls (the little knots on it) the beam; the gutters, the antler; the sur-antler, royal, sur-royal; and all at top the croches.

ATTIRE of a buck; the burr, the beam; the brow-antler, the sur-antler; the advancer, palm, and spellers.

If croches grow in the form of a man's hand, it is then called a palmed head. Heads bearing not above three or four, the croches being placed aloft, all of one height, are called crowned heads; heads having double croches, are called forked heads; because the croches are planted on the top of the beam like forks.

If you are asked what a stag bears, you are only to reckon the croches he bears, and never to express an odd number; as, if he hath four croches on his near horn, and five on his far; you must say he bears ten, and a false right on his near horn (for all that the beam bears are called rights); but if four on the near horn, you may say he bears twelve, a double false right on the near horn; for you must not only make the number even, but also the horns even with that distinction.

AUGUST. This month may properly be termed the first of the sportsman's year, as red grouse shooting, the earliest of our field sports, properly so called, commences on the twelfth, and black game shooting on the twentieth. Angling, it is true, may be said to begin in March or even February; but then it is a diversion, *sui generis*, which bears little or no relation to any other branch of field sports; and is indeed seldom characterised as such.

Angle for chub with gentles or greaves;

also with bumble-bees, moths, and blue flies.

Golden plovers frequent the lofty hills of Scotland and the North of England.

Fish for roach and rudd with gentles, little white snails, or flies under water.

For dace, bate with gentles, greaves, or small flies.

Otter hunting still continues, and may be said to continue during all the warm months.

Angle for trout and grayling with fern flies, harry long legs, orange flies, spinners, batter stone flies, ant flies, and lesser whirling dums; for bottom angling, or for roving for trout, only use minnows or worms.

Fish for barbel with red worms, greaves, or gentles.

Knots and godwits now begin to be taken with nets in the fenny counties.

Angle for bleak with gentles, house flies, or the artificial ant fly.

The stone curlew, or Norfolk plover, in dry stony upland meadows and downs.

Rove for perch with brandling or minnows.

Troll for jack and pike.

Fish for carp and bream, with worms, paste and gentles.

Salmon generally spawn in this and the foregoing month, and immediately begin to descend towards the sea. In the Thames, however, they begin to ascend in this month.

For pope or gudgeons use blood worms or gentles.

Seek for curlew on upland boggy and heathy moors.

Tench come in season again; bait with gentles and sweet paste.

Red deer go to rut.

With this month flapper (young ducks) shooting ends, they being now able to fly, and of course no longer *flappers*.

AVIARY. A place set apart to keep birds in; being generally so large as to allow them a degree of freedom nearly approaching to their natural state.

AURELIUS, chesnut, was bred by Lord Grosvenor, 1785, a son of Eclipse, dam by Blank; grandam by Snip; great grandam by the Godolphin Arabian; great-great-grandam by Frampton's White Neck. Aurelius was the only son of Eclipse, out of a blank mare; he was a horse of great power, and very like his sire in shape, marks, &c.; full 15 ½ hands high, and was considered the best three year old in the kingdom. At the first Spring meeting, 1788, the first time of his starting, he won

the third class of the Prince's stakes of 100 guineas each; beating Grey Diomed, Amadis, Minos, Eagle, &c.; at the same meeting he won the main of the Prince's stakes of 200 guineas each, beating Grey Diomed and Feenon, allowing them 3lb. Sir Thomas and Amadis paid forfeit; after

which he ran for the Derby Stakes, when amiss, and was second to Sir Thomas, beating Altamont, Feenon, Grey Diomed, Young Highflyer, Star, Ponto, Goliah, Conflans, and Jupiter.—He was sire of Marius, Rolliker, &c. and covered in the neighbourhood of Bristol, at five guineas.

B

BABBLER is a hound, upon whose tongue no reliance can be placed, either in drag, upon trail, or the recovery of a fault; so strictly true is the well known adage, that "a liar is not to be believed although he speaks the truth." A halter is a certain remedy for the babbling hound, and the only known cure.

BACK. See **ABACK**.

BACK OF A HORSE. The part upon which the saddle is placed. Upon the shape of the back a great deal of the beauty and utility of the horse depends. If he is long in the back, narrow across the loins, and light in the carcase, with flat ribs, he can never be considered either a strong horse, or a handsome one, however good he may be in other points.

BACK-BEAR, **BACK-BEREND,** **BACK-BEROND,** in the forest laws signified *bearing upon the back*; and the circumstance of a man being found *back-berend* was one of the four cases wherein a forester might arrest an offender against *vert and venison*, when he was found carrying a deer upon his back. The other three were **DOG-DRAW**, **STABLE-STAND**, and **BLOODY-HAND**.

BACK, GALLED. Horses are sometimes hurt on the back, by the saddle or harness; this can only occur from the inattention of those who have the management of them. Great care is necessary in examining the saddle, or harness frequently; to keep them in proper order; and if any injury or lump is found on the horse's back, the pads of the saddles or harness, should be examined; when the cause of the injury, will, in general, be very soon found. It can be of no service to apply any thing to a galled back, while the pressure which originally produced it, is continued: and it is from such culpable and cruel neglect, that very troublesome abscesses and fistulas are produced. When the harness has been made to fit the horse properly, very little more is required to get the back well again. If it has produced a sore, dress it with the following ointment:—

Saturnine ointment, two ounces.

Alum, in fine powder, half an ounce.
Mix.

When a swelling only is observed upon the horse's back or shoulder, you may bathe it frequently with the following lotion:—

Vinegar, four ounces.

Goulard's extract of lead, an ounce.

Water, one pint. Mix.

Cloths dipped in this, should be laid on the part, and changed whenever they become dry.

BACKING. In horse-breaking, signifies the first time that a colt is mounted, after having previously undergone all the ceremonies of *handling, quieting, stabling*, together with the discipline of the ring, &c. &c. For the proper method of *backing* a colt see **BREAKING THE HORSE**.

BACK-RAKING is an operation which consists in introducing the hand into the horse's fundament, in order to draw off any hard dung that may be in the gut. It will be rendered much more easy, by giving the horse a clyster previously to performing the operation.

BACK SINEWS. These are the tendons on the back part of the fore and hind leg of the horse, extending from the knee or hock to the fetlock joint. They are very liable to injury from strains, &c. they are flexor tendons, and consist principally of two, one inserted into the bottom of the coffin-bone, and the other into the pastern; this last serves as a sheath to the former. See **STRAINS OF BACK SINEWS**.

BACK WORM, or FILANDER. A disease incident to hawks. These worms are about half-a-yard long, are very troublesome to the bird, and will ultimately kill him. They lie wrapped up in a thin skin about the reins, and proceed from gross and viscous humours in the bowels, occasioned by indigestion and want of natural heat. This distemper is easily discerned by the following symptoms; namely, by the hawk's fetid breath, casting her gorge, croaking in the night, trembling, ruffling,



and writhing her tail; by the muting, which is small and unclean; and also by keeping at a stay in a low state of health. The back worm is seldom quite extirpated; but cloves of garlick, steeped in worm-wood, and given her once a fortnight, prior to her being put into the mew, will check or neutralize the disease; and without this precaution the bird will be suddenly spoiled. There is another sort of

filander, which lies in the gut or pannel, being long, small, white and red worms: for cure, take aloes hepatic, filings of iron, nutmeg, and as much honey as will serve to make them into a pill, which should be given to her in the morning as soon as she has cast; and after she has muted completely away, good warm meat should be given her.

BADGER. This animal cannot be said to afford diversion to the superior classes of the present day; yet a particular notice of it is indispensably necessary. The badger is very well known in this country, and is occasionally found in all the temperate parts of Europe, Asia, and America. Its general length is something more than two feet, and that of the tail six inches. Its body and legs are thick. The eyes and ears are small, and the claws of the fore legs long and straight. It is of an uniform grey colour above, and on the under parts entirely black, a singular circumstance, animals being generally darkest coloured above. The face is white; and along each side of the head runs a black pyramidal stripe, which includes the eyes and ears. The hair is coarse, and the teeth and claws peculiarly strong. The badger inhabits woody places, the clefts of rocks, or takes up his abode in burrows which he forms in the ground. He is a very cleanly animal, and keeps his subterranean mansion exceedingly neat. He continues in his habitation during the day, and does not make his appearance abroad till the evening. At times, from indulging in indolence and sleep, he becomes excessively fat. During the severe weather in winter, he remains in a torpid state in his den, sleeping on a commodious bed formed of dry grass. Under the tail is a receptacle, in which is secreted a white fetid substance, that constantly exudes through the orifice, and gives him a most unpleasant smell. They live in pairs, and produce in the spring four or five young. If caught before they are grown up, they may be tamed. The flesh, when the animals are well fed, makes excellent hams and bacon, their mode of feeding being somewhat similar to that of the wild hog.

Badger-hunting is a sport occasionally enjoyed by the rustics and lower orders. As the badger is generally either under ground, or in some place of security, during the day, the diversion is followed by moonlight. At a late hour in the evening, when the animal has left his strong hold, in order to supply the cravings of hunger, some of the party, according to previous agreement, proceed to place a sack lengthways in the burrow, and so contrived that the mouth of it directly corresponds with the mouth of the burrow, and it is secured in that position by means of a willow hoop, which, from its pliability, readily submits to the form required. This part of the business being completed, and the party who fixed the sack withdrawn to a convenient distance, the signal whistle is given, when their distant companions lay on the dogs, (terriers generally, though there

B A D G E R

are few dogs that will not pursue the badger,) encouraging them through the neighbouring woods, coppices, and hedge-rows; which the badgers abroad no sooner find, than they make to their earths for shelter. They enter the sack, and are immediately secured by those stationed near the spot for the purpose.

Badgers are sometimes dug out of their subterranean retreats; which, however, can seldom be effected without much labour and difficulty, as the animal's fortification evinces much instinctive ingenuity, and will be frequently found to terminate in a variety of ramifications amongst the roots of trees. At all events, digging of badgers, without very good dogs, is a work of time; for should the terriers not keep constantly at him, from his facility of penetrating and throwing back the earth, he will, in a loose soil, bury himself faster than the workmen can sink pits, by which he may be got into an angle.

Badger-hunting was formerly considered an amusement; and, amongst other directions to promote the sport, one was, to entice them from their holes by drawing a piece of pork (of which they were supposed to be remarkably fond) over the entrance, which would induce them immediately to make their appearance. Another story told of them was, that they lived a number of years, and when they lost their sight, through age, they kept in their burrows, and were fed by the younger of their tribe. A third was, that their legs were longer on the right than on the left side, and therefore, when they were pursued, they took care, if possible, to run along the side of a hill, bank, furrow, or cart-rut.

Few animals have suffered more from vulgar prejudice than the badger: inoffensive in his nature, he appears to have acquired the character of ferocity merely because he possesses uncommon strength, and is furnished with strong teeth, as if formed to live by rapine. He has been charged with destroying rabbits and game; but the circumstance seems to rest on no well-founded authority. Nature has denied the animal the speed requisite to escape from its enemies, but has, at the same time, provided it with the most formidable weapons of defence: few animals defend themselves better, or fight harder; and hence, perhaps, we may perceive the origin of badger-baiting.

According to some old sporting-books, the badger was distinguished by several appellations; viz. a *graybrock*, *boreson*, or *bausow*. The male was called a *badger*, or *bore-pig*; and the female a *sow*.

Naturalists once distinguished this animal by the name of the *swine-badger* and the *dog-badger*, from the supposed resemblance of their heads to those animals, and thus divided them into two sorts; but the most accurate observers have been able to observe only one kind, that whose head and nose resemble those of the dog; and Buffon remarks, that the badger admits of no varieties, nor does it even approach to any other species.

Badgers have, at former periods, been used to enter young fox-hounds; and for this purpose their long teeth were first broken; but it was a bad practice, and has been utterly abandoned for some time.

As the badger is known to be a very cleanly animal, it has been asserted that the fox takes advantage of this niceness, and uses an obvious method to make the badger's home unpleasant, of which he by this means possesses himself; but this is founded on no better authority than mere conjecture.

The fat of the badger in some parts is in great request for ointments and salves. The skin, dressed with the hair on, is used for pistol furniture. The Highlanders make their pendent pouches of it. The hair is also made into brushes, to soften and harmonize the shades in painting, and which are called sweetening tools.

BADGER-BAITING. In baiting the badger, the animal is put into a long narrow box, with an opening at one end and at the top. One person stands with a watch, in order to calculate the time: the keeper of the badger having placed the animal in the box. Whoever wishes to *draw him* sends in his dog, which immediately seizes his opponent, who likewise is not slow in returning the compliment so that both get fast hold of each other. The dog is then drawn out by the tail, and the badger with him; they are then separated; the badger is turned into his box, and the same dog attacks him again, showing his *bottom* by the number of times he lays hold of the badger in a minute, so as to allow his master to drag them both out together.

BADGER-HUNTING. See **BADGER.**

BAIT. Independent of those fish which are used as live and dead bait, and which I shall notice in **TROLLING**, **LIVE-BAIT**, **FISHING**, &c. a number of objects, chiefly of the insect and reptile tribes, are used in bottom angling. Flies are not, however, classed under the head of **BAIT**. (See **FLIES** and **FLY-FISHING**.) The most common bait, especially near London and other large towns, is

THE GENTLES. Gentles or maggots may be bred from any animal substance, either fish, flesh, or fowl, (those from fish are the least worthy,) by exposing it to flies to blow on during the spring and summer. I have found flies in winter among ivy on walls that are fronting the south, and on a warm day have procured them, by which means I have had flesh blown by flies, and bred gentles, in every month during winter: after they are of a full size, put them in a vessel with some house sand: some use bran; but, from its heating quality, the gentles sooner turn, as anglers term it; that is, become a chrysalis, in which state they are of little or no use. In London it is not worth the trou-

ble of breeding gentles; for as many as will serve a day's fishing may be purchased at any of the tackle shops for a few pence. The least troublesome method I am acquainted with, to keep gentles during the winter, is to get some full-grown ones as late in the season as possible, and put them with fresh mould and half-dried cowdung into a vessel two or three feet in depth, which vessel must be kept in a cool cellar or outhouse, occasionally sprinkling a little water over them; by adopting this plan, I am seldom without gentles in February, March, and April, in which months they are a valuable bait. When you use any at this season of the year, (during spring,) take only as many as you are likely to want, and keep them cool and close, or they will soon turn to a chrysalis if exposed to the air, and therefore close up immediately the place you take them from.

In the summer season, when on a fishing excursion from home, I take a quantity of gentles rather green with me, and daily give them a small piece of fresh flesh or liver, or a small fish; the small gentles then increase in size, and keep up my stock.

When you go out for a day's angling with gentles, put them in damp sand or earth; for if put in a box with bran, they may turn. Note—carp, tench, barbel, and chub, prefer gentles that are somewhat green.

Anglers who live in the country may, if they choose, breed and preserve gentles all the year, in the following manner: get the whole or part of a bullock's liver in October, or the heads of sheep with part of the wool on. Cut gashes in them, and let them be well blown by the flies: when the fly-blows are become full-grown gentles, put them and the remainder of the liver or heads into a tight cask or tub, having first put into the tub or cask about a peck of fresh mould from the fields, to

which add half the quantity of half-dried cow-dung, and then put the same quantity of mould and dung over them; keep them in a cold place; and when the mould, &c. at the top becomes dry, sprinkle a little water over it. Using liver or heads I think less disagreeable than having a dead animal blown by flies; but those who prefer a rabbit, or hare, or cat, or dog, have only to follow the directions given above, and they will have gentles at all times. Those who object to having gentles in their house, may preserve them in the garden, by putting the liver or other substance with gentles, mould, or dung, in a hole about three feet deep; but note—this hole must be plastered round and at the bottom with strong clay, or the gentles will penetrate into the earth to a great distance. I find those bred from rabbits or hares, or heads, less liable to burrow in the earth, because the skin and wool keep longer moist, and also afford them food. When you open the store, do it carefully; for when the cool spring air reaches the gentles, they quickly become a chrysalis. Horse-dung is too hot for gentles; but cow-dung nourishes them, as will hog's-dung also, but in a less degree.

The best way to keep gentles in the summer, is to put them in a salmon-kit (which may be bought of the people who sell pickled salmon) with some house sand, and sprinkle daily a handful of dampish sand over them, or a very little water, and they will keep from changing to a chrysalis much longer than if kept in a box or bag; for the kit, being very broad at the bottom, enables the gentles to move about and keep themselves cool; but when they are laid on each other in heaps in a box or bag, they soon become heated, and, in consequence, soon change to the chrysalis state.

WORMS are a useful and a general bait for fish, of which there are many different species. I shall describe those which are most fit for the angler's purpose, which are six different kinds; namely, the lob, the marsh, the brandling, the red, the blood, and the tag-tail worm. There are small worms found about the roots of dock-weeds, cabbages, turnips, potatoes, &c.; but they are much inferior to either blood or red worms.

Lob Worms, large and small, by some called the *Dew or Garden Worm*; by others, the *Twatchel*, or *Squirrel Tail*. These worms, which are the largest used in angling, are generally found in gardens, and may be gathered in great numbers in a

damp evening during the spring and summer, when they come out of the ground, or by digging for them where much manure has been laid; they may also be got by laying straw on the ground, and pouring water over it; they then soon come near the surface: and they may also be forced out of the ground by pouring a strong mixture of salt water on it, or by forcing a dung-fork or spade in the ground, and shaking and loosening the earth therewith. The lob is a good bait for trout, barbel, eels, and perch, particularly for night lines, during the early part of the summer. Note—the largest lob worms are of a dirty yellow whitish colour; the smaller, a brownish red, with a flat tail, something like a squirrel; always prefer the large lob.

Marsh Worms or Blue Heads are very common, particularly in marsh lands, and may be found under every lump of cow-dung in the fields or commons, or dug out of garden fields or dunghills; in fact, wherever you find earth, you may find marsh worms, especially in the spring and in marsh earth mould: in colour they are a dark brown, with a blueish gloss of a fleshy substance, or fat, and, when well scoured, by which they loose their earth inside, and are filled with a white sort, they are an excellent bait for trout, perch, and most large fish. The poor people who supply the London tackle-shops with worms, get a great number of marsh worms on Kennington Common in the night, using a candle and lantern to see the worms; this method is practised in spring and summer, particularly after warm rain has fallen in the evenings.

Brandlings are found in great numbers in dunghills, particularly in those which have lain some time, and become very rotten: they are used for carp, perch, &c. This worm is striped with red and yellow across the whole body. Brandlings are more used by provincial than by the London anglers; they should be kept several days in moss, to scour out the bitter pungent mixture with which they abound.

Red Worms. Some red worms are found in old dunghills, and they also breed among the bark after it has been used by tanners, and thrown out in heaps; but the principal places where they are found, are the banks of the great common sewers near the metropolis; from which places the tackle-shops are chiefly supplied, as those banks close to the water breed lob, marsh, brandling, and red worms, in immense numbers. Several poor people get part

of their living by procuring these worms, which they sell to the London tackle-shops at per hundred. The red worm, when well scoured, is of a fine bright red colour, with a knot or belt in the middle; it is the best and most killing worm for carp, tench, barbel, chub, dace, perch, gudgeons, eels, flounders, bream, &c. Too much cannot be said in praise of well-scoured red worms: two on a hook are very enticing to perch, barbel, carp, chub, tench, &c.—indeed, hardly any fish will refuse them, especially during the spring, autumn, and winter; in summer you may use them in the evenings of wet days, because at such times worms move, and the fish then expect them on the banks, from which they frequently drop into the water.

Blood Worms. This worm, or maggot—for it seems to be covered with a case or chrysalis, and at last becomes a gnat-fly (the smallest used in angling)—is found at the bottom of shallow ponds in cowlayers or yards, and is bred from the excrements of the cows and other horned cattle. By gathering the earth, sand, and dung, from these ponds, innumerable blood worms may be found; some are also to be met with in the ditches or drains that run from houses, farm-yards, &c. but they are not so large as those found in the cowlayers. In the ditches, drains, and sewers, the curious may find so many blood-worms, that certain parts appear a mass of blood, over which innumerable gnats are playing; they are about an inch long, and not much thicker than a worsted needle, and of a blood-red colour, from which they take their name: they generally appear in April. This worm is very lively, and a most killing bait; for many fish, particularly gudgeons, carp, roach, dace, &c. Put two or three on the hook together. To preserve them alive, keep them in some earth mixed with a little damp cow, horse, or pig-dung; or they may be kept in the soil you find them in when taken from the ponds.

Marl or Tag-Tail Worms. This worm is so called from its having a yellow tail: they are found in marly lands and clayey banks; and it is a clean, light, red-coloured worm, with a deep head, very strong and lively on the hook, and requires but little scouring. Two of them put on a No. 6 hook is the most killing worm bait for trout in the morning early, and late in the evening, particularly during the month of April, and after rain, while the water is a little coloured: so are the smaller size, for dace, roach, perch, and gudgeons. Note—dur-

ing the spring months, this worm cannot be too much prized.

CATERPILLARS. Caterpillars, found on cabbages, lettuces, and indeed almost every kind of plant or bush, are excellent baits for most fish.

SHRIMPS. Live or dead shrimps are a good bait for perch, eels, ruffs or pope, and flounders. If dead, the shell or case must be taken off before you use them. When you use shrimps for a bait, enter the point of your hook in its side near the back, and bring it to the side of the head near the eye. During the summer months, the canal crossing the Isle of Dogs abounds with shrimps, which are easily taken with a minnow or fine landing-net. Note—when angling for perch, carp, pike, barbel, chub, roach, &c. during the months of June, July, August, and September, you must not expect them to feed in the middle of the day, say from eleven till four o'clock in the afternoon, unless the weather is very dark and gloomy. During drizzling rain or a light breeze of wind, therefore, fish early and late, or you lose your time and labour.

TO CLEANSE AND KEEP WORMS. The best method of cleansing or scouring worms from their filth, is by putting them into damp moss. Persons who live in the country have it in their power to get moss with little trouble, as it grows in most fields on commons and on banks. About February and March it is in the best state, at which time I generally procure as much as will last me for twelve months: in London it may be purchased at the herb-shops in Covent Garden Market, Fleet Market, and, I believe, all the vegetable markets.

Worms should lie in moss two or three days before they are used; they will then be much brighter, larger, and more lively than when first taken. If you find any of them bruised, mutilated, or sickly, throw them away; for if they die, their bodies soon become corrupt, spoil the moss, and will occasion the death of others; therefore make it a rule, when you leave off angling, or when you have returned from it, to look over your worms, cast away the diseased, and give the remainder some fresh damp moss, or a piece of damp old net, or coarse hempen cloth: and if you find, when out angling all day, that the worms you have with you seem sickly, gather a little grass and damp it, and put it among them, which will much refresh them. Some dip their bag of worms in the water; but it is a bad practice, for it frequently kills them all.

TO PRESERVE A STOCK OF WORMS ALL THE YEAR. Take about a pound of mutton suet chopped into small pieces, and put it into a saucepan containing about a quart of water; let it boil slowly until the suet is dissolved, and then into this liquor dip some pieces of coarse hempen sacking or cloth, such as is called coarse wrappers at the linen drapers, or old coarse worn out traces, or old nets, or old nail bags, though the new cloth is best if very coarse, and before it is used it should be well washed, to free it from the oil or dressing which may adhere to it from the loom: when the cloths are well saturated with the fat liquor, and cold, mix some fresh mould with them, and put the whole into a deep earthen vessel, or small tub; into this pour a good stock of marsh or red worms, and over the top tie a cloth, to prevent them escaping, and in which there should be a few very small holes to admit air. If the vessel is placed in a cool dark cellar, the worms will feed and cleanse themselves, and keep lively and fit for use for many months. It is very advisable to keep the different species of worms in separate vessels, so that the angler can at any time select the sort and quantity necessary to be placed in moss preparatory to using them.

During the time your worms are in pans or tubs, it will be proper, when the earth they are among gets very dry at the top, to place those vessels for a few minutes in a gentle shower of rain, or to dip your hand in water and sprinkle some on it; but soft rain refreshes them amazingly, therefore is to be preferred.

Brandlings will live some months in pans or tubs half filled with dung from a pig sty, mixed with yellow gravel, changed once a month as follows:—turn the pan or tub upside downward; put in fresh dung and gravel; then put the worms in again; if any are dead cast them away.

The best time to collect a stock of worms is in March or April, for at that season they are very healthy, and may be kept more than twelve months, by following the directions here given.

I would advise the angler always to take a few red worms with him when he goes to fish, even if he intends to try for roach or any other fish; for, although paste is the proper bait for roach, yet sometimes a perch will make his appearance among the roach, which he may have collected about his baited hook, and his sport will instantly cease: in that case a worm bait is the best remedy; for, on ap-

plying it, the disturber is generally soon taken.

Lob, marsh, brandling, red and blood worms, may be purchased at most of the fishing tackle shops in London, at from three pence to sixpence per hundred.

WASP, GRUBS, MAGGOTS, CLAP BAITS, AND CASE WORMS, OR CAD BAIT. The young wasp or bee, when in the state of maggot, is an excellent dapping and tripping bait for trout: this maggot is much like the common gentle, but considerably larger; use a No. 8 hook, and put a good bunch of them on at a time, and let them swim down the current, touching the bottom. There are two kinds of maggots which were used by anglers formerly, but the experienced of the present day very properly reject them. These maggots, or, as some call them, bobs, and grubs, are found when turned up by the plough, particularly in the spring, and in a sandy soil; they are three times as big as a gentle, and have a red head: they are the breed of insects called cock-chaffers; they afford food for rooks, who will closely follow the plough in search of them, and during the season grow very fat upon them. The other is called the cow dung bob-grub, or clap-bait; they may be found early in the spring months, and parts of the summer, under half-dry cow dung, in meadows, grass commons, &c. This maggot is the produce of the blue or cow-beetle, which flies about in the summer evenings, and frequently smites the patient angler on the face in his return from his favourite amusement. Its colour is a dusky yellowish white, and some have a dark coloured head.

The only success I have met with in angling with those bobs or grubs (those grubs or maggots are used chiefly by country anglers, in still waters, especially for perch; they are found in a light mould, and under and about cabbages, potatoes, &c. they are very tough, and will live a long while among half-dried cow dung or light mould; they vary in colours, some are gray—which I have found the best—others green and brown,) has been while fishing for perch, and have sometimes taken perch in the months of July and August (especially in ponds and still waters,) when they refused a worm, but they have generally been small fish. There are also two or three other insects, known by the names of cad-bait, cadis, or case worms, or maggots, which may be kept and scoured in a box or bag in damp house sand; these, though an excellent bait for

most fish, are not worth the trouble of getting or preserving while gentles can be procured; when they are changed into a fly, some use them sunk a foot into the water, by putting a small shot on the line, and will sometimes take a fish in this manner.

First, the cad in a husk or case; secondly, a complete fly; thirdly, on the wing. This fly is the stone fly; by some called the cad fly. The green and gray drakes are similarly incased in pieces of rushes, dried stems of weeds, &c. until they become flies, (those look like maggots or grubs, of a yellowish colour, that are found in cases, or husks of wood and stones, and those incased in rushy or weedy husks are invariably green,) case worms, rough coats, &c. which were used formerly in angling for roach, dace, and chub; but in respect to their value as bait for fishing, compared with what the modern anglers use, they are not worth naming or describing, yet are extremely curious as a natural production. The cad may be found on the margin of small rivers, (the banks of the New River and the Lea abounds with them,) adhering to the bank sides, or a little below the surface, and sometimes on the top, during the spring months.—This insect is about three quarters of an inch long, inclosed in a rough husk or case, the size of a large tobacco pipe stem, and has the appearance of small pieces of decayed sticks, &c. As the weather becomes warm they break through the case, and are a complete fly.

SALMON SPAWN.—Salmon spawn is described by some writers as a superior bait for trout, chub, roach, &c. The way to preserve it is as follows:—lay it on a board or trencher, and dry it gradually, then put it in a woollen bag and hang it in a moderate warm dry place, near the fire, or beside the chimney; when it grows too dry, soak it a little in water before you use it; put a piece on your hook something larger than a pea. Note: Salmon spawn is in the best state about two months before the fish spawns.

Among the various methods of preserving salmon spawn, the following is the best:—take one pound of full grown salmon spawn; put it into water as hot as you can bear your hands in, and wash off all the skin, &c. from the spawn, then rinse it by pouring on cold water, taking care that no skin, blood, &c. is left with the spawn; then put it into a cloth or bag, and hang it up to drain for twenty-four hours; then put with it about two ounces

of rock or bay salt, to which add about a quarter of an ounce of salt petre, and hang it up again for twenty-four hours more; then spread it out on a dish to dry dry in the sun, or before the fire, until it becomes stiff; then put it into a jar or gallipot, and run melted suet over the top of it, which should be well covered, and fastened with bladder and leather, to keep the air out.

WHEAT. Wheat is a favourite bait with some anglers; those who choose to try it must prepare it in the following manner:—take some new wheat in the state it is used for making furnity; bruise it a little, and then add a little milk or water to it; let it then be put into the oven, or parboiled over a slow fire, and when cold it will be in a state of a substance between glue and jelly; the grain will be the size of a large gentle; put one on the hook, same as if baiting with a gentle, but I prefer paste, having never killed so many large roach with wheat:—with pearl barley parboiled I have also killed many roach and rudd in ponds and still water.

GREAVES. All the refuse of the fat used by tallow chandlers, and forms a good bait for barbel, eels, and even trout: to prepare greaves for use, you must break it in pieces, and soak it in cold water till perfectly soft; then select the whitest parts and keep them dry for use.

CHICKEN'S GUTS, or of any kind of poultry, form, when fresh, excellent bait for eels, and occasionally for jack and pike.

PASTE. Paste is a killing bait for almost every kind of fish that breed in rivers or any fresh waters, but it requires some little time and labour to make it, which must be done with clean hands; also care and skill in using it. Many strange and ridiculous receipts are to be met with for making paste, which tend much to confound and puzzle the inexperienced angler; such as part of the leg of a kitten, with bee's wax, suet, &c. beat in a mortar; or, cherries and cheese, sheep's blood and saffron; or, cheese, flour, dead men's fat, aniseed water and roasted bacon: many others, equally useless and absurd, I could mention; but I shall better serve the novice in angling by assuring him that nothing more is wanted in making paste to kill every kind of fish which will take paste, than flour, bread, water and honey, (with a little vermilion or red ochre to colour the paste, which may sometimes be useful,) and teaching him how to make and use the same.

SWEET PASTE FOR CARP, TENCH, CHUB, AND ROACH. Take the crumb of a penny roll, or a piece of loaf the same size, of the first day's baking, and dip it into honey; then work it in your hands, that the honey may be well incorporated with the bread, and until it is of a sufficient consistence to remain on the hook: this is the most killing bait for carp I ever met with, during the months of July and August, and the rest of the season. Tench are also very fond of it; likewise chub and roach. I have taken many heavy roach with this sweet paste when they refused every other bait. The quantity I have named is enough for a day's fishing, but it is proper to take some to throw in occasionally close to your float, while angling. When honey is not to be had, dissolve a quantity of loaf sugar in warm water, and dip the bread therein; this makes a good clean and sweet paste when well kneaded.

PLAIN PASTE FOR ROACH, &c. Take a piece of the crumb of a roll or loaf the day after it is baked, about the size of an apple, and dip it lightly in water; immediately squeeze it as dry as possible, and then place it in your left hand, and with your right thumb and fingers, work or knead it well until it becomes exceedingly smooth and stiff. To make this paste to the consistence I have named, it will require to be kneaded a quarter of an hour at least. This paste, when well made, is the best bait used for roach, as they will seldom refuse it at any time of the year. Carp, tench, chub, dace, bleak, barbel, and minnows, will also take it.—This paste is valuable from its being easily made while you are at the water side; indeed it is most proper to make it there, especially if you fish at any distance from home, as it may chance to get somewhat sour by carrying it a length of time; it is further valuable in striking fish when they bite; for, if made properly, it will adhere to the hook until you have struck; it then flies all to pieces, consequently your hook is not impeded in fixing in the fish, which is material, particularly in angling for roach, when so small a hook as No. 10, 11, or 12, is used. New bread paste is more glutinous and adheres too close, which makes it unfit for a small hook.—This new bread paste is made by taking a piece or crumb of new baked bread, and a small piece of stale, and kneading it well together in your hands a few minutes, (without water) till of a proper consistence: those who prefer ease to sport, make use of the last mentioned paste in-

stead of that made of the second day's bread. To colour paste, add a little vermillion, or red ochre; a very small quantity will make it a pale pink colour; a little more, a poppy; but the pale pink or salmon colour is best.

CHEESE PASTE FOR CHUB, AND GREAVES PASTE FOR BARBEL. Paste made with cheese and bread is a very killing bait, particularly for chub, if made in the following manner:—take some old Cheshire cheese—the damper, the more rotten, and ranker, the better—and well work it, and mix it with the crumb of new bread until it becomes of a proper consistence to bait the hook with; if the angler will go to the expense and trouble of making ground bait, of a pound of old maggoty Cheshire cheese, and a new quartern loaf, and fish in still chub holes, he will have sport enough. To make paste for barbel, dip the crumb of a new penny loaf into the liquor that greaves have been boiled in, and knead it till stiff and fit for use. This bait is a killing bait for barbel.

In making paste it is absolutely necessary that your hands should be very clean, and likewise the bread and water, otherwise the paste will be of a bad colour, and taste. In that case you must not expect success. A paste is made by mixing water in small quantities with flour, and several times squeezing it dry, forming in the first instance a piece of dough; this dough must be worked in the hands through twenty or more different waters, till it becomes of a consistence almost as sticky as birdlime: when made, carry it in a damp cloth, and you must invariably wet your fingers when baiting your hook: this paste is known to experienced anglers, and preferred, solely for its remaining fast to the hook, which it will do in any stream, however rapid. It is distinguished from other pastes by the name of patent paste; but my own experience has quite convinced me that the other kinds which I have described, are, in every respect superior, and which is also the opinion of the best anglers I am acquainted with. By using the different sorts of paste which I have enumerated, and for such fish as I shall direct, in their proper places, the angler may be assured of success, without the aid of oils, scents, or any other quackery.

BAITING. See bull baiting, &c.

BAJAZET, the property of Ld. March, was bred by Sir John Dutton, 1740.—Bajazet was a son of the Godolphin Arabian; dam by Whitefoot; grandam by

Leedes; great grandam a natural barb mare, the property of Queen Anne. In June, 1746, Bajazet gave Russett 6lbs. and beat him in a four mile match; in 1747, he won £50 at Beccles, Burford, and Epsom; in April, 1748, he beat Abraham, six miles, each carrying 12st. at Newmarket, 50gs.; in June, he beat Moorcock, by Blacklegs, at Winchester, 12st. each, £50; in June, 1750, he won £50 at Winchester, beating Drudge, by Crab, and Sir Charles Goring's Tom Thumb. Bajazet was a bay, with a little white on his off hind fetlock.

BALD CHARLOTTE. This mare, allowed to have been the best in the kingdom in her time, was bred by Captain Appleyard, in 1721. She was got by Old Royal, out of Bethell's Castaway mare; grandam, a gray mare by Brimmer; Brimmer was bred by the D'Arcy family, out of a royal mare by the Yellow Turk. In 1726, she beat twenty-three mares for the King's plate, at Black Hambleton; same year she won the October stakes at Newmarket, beating seven horses; on April 15th, 1727, she bore off the King's plate at the same place: three days after, carrying 18st. she beat Mr. A. Swinger's horse, 17st. a four mile match, for 200gs.: she also won the King's plate at Winchester, carrying 12st. In April, 1729, she gave Sir Robert Fagg's Fanny, 7lbs. and beat her, four miles, 300gs.

THE BALD GALLOWAY.

"In Whittlebury forest vast

This goodly steed was rear'd."

He was the property of, and was bred by, Captain Rider. The Bald Galloway was got by the St. Victor barb out of a royal mare. We know but little concerning this horse; he was, however, sire of Old Cartouch, Buckhunter, Dart, Foxhunter, Gray Ovington, Lilliput, Judgment, Bauble, Daffodil, Roxana, Silverlocks, and several that won plates in the north, which brought him into repute as a stallion.

BALLS. This is the form in which medicine is most commonly given to horses. They are generally rolled up into a cylindrical form, about one inch in diameter, and two and a half in length. A little practice will enable a groom to give balls—though sometimes there is much difficulty in giving them without the instrument called a *balling iron*, and there are some horses that will not take a ball by any other means. When the balling iron is used, it should be covered carefully with listing or strips of flannel, to prevent

the mouth from being bruised by it. In giving a ball, the horse's tongue is drawn out on the right side, and held firmly with the left hand, while, with the right, the ball is quickly passed over the tongue, into the pharynx, or top of the gullet.—The moment the right hand is withdrawn from the mouth, the tongue is let loose, and the ball is generally swallowed. The balling iron is to be removed immediately after the ball has been passed into the throat. Balls should be made at the time they are wanted, as by keeping, they will become so hard as to be almost insoluble in the stomach, besides losing much of their strength, this particularly when the ingredients of which they are composed are of an evaporating nature, as camphor, ammonia, and the essential oils. Horses have been destroyed from the balls having been kept until they became very hard, they have then stuck in the throat and choked them. Balls cannot be conveniently given unless they are wrapped up in paper; for this purpose the thinnest and softest should always be chosen.

When more than one ball are made at a time, you must observe that there is great care bestowed in mixing the various ingredients, so that each ball may contain an equal proportion of the articles employed, before it is made into a mass; this is usually directed to be done by adding syrup, but molasses will be found to answer as well. Soap is often used for bringing balls to a proper consistency for forming a mass, particularly purging balls; and when it is not an incompatible ingredient, is one of the best articles that you can employ. When a horse has a violent cold, or the disease called the strangles, it is not proper to give him either balls or drenches, for in these cases there is so much inflammation and soreness of the throat, as to render swallowing not only painful and difficult, but even dangerous.

The *alterative laxative* ball is formed by taking,

Barbadoes aloes, 11 drachms.

Soap (Castile) 1 ounce.

Caraway seeds powdered 1 oz. & a half.

To this some add about half an ounce of powdered ginger; the whole, after being well mixed, is to be formed into a mass, by adding a little treacle; it is then to be divided into four balls, one of which is to be given occasionally. While the horse is taking these balls, he must have mash, and the chill just taken off his water; he should have moderate exercise.

B A L

For a **DIURETIC ALTERATIVE BALL**, take
 Yellow resin 4 ounces.
 Spanish or Castile soap 3 ounces.
 Venice turpentine 2 ounces.

Caraway seeds powdered, enough to form the mass. The mass is then to be divided into balls of a moderate size; one of them to be given every day, until a diuretic effect is produced.

For a **DIAPHORETIC ALTERATIVE BALL**,
 Antimonial powder 2 drachms.
 Camphor 1 dr. & a half.
 Flour 3 drachms.

Treacle enough to form the ball, for one dose.

CATHARTIC OR PURGING BALL, take
 Barbadoes aloes powdered 6 drs.
 Soap 3 & a half.
 Ginger powdered 1 dr.
 Oil of anise-seeds 12 drops.

Mix the soap and oil of anise-seeds into a paste, by beating them together in a mortar, with a very little water; when this is done, add the powdered aloes and ginger, and beat the whole into a ball. When the socotrine aloes are used, about 6 drs. made into a ball with a little oil and water, or soap, may be given; these generally operate in about fourteen hours, and you should give him a bran mash, composed of hot water and bran well mixed.

ASTRINGENT BALLS, for diarrhoea, &c.
 Powdered catechu 3 drachms.
 Alum 3 drs.
 Powdered opium half a dr.
 ——— ginger 2 drs.

Treacle enough to form the whole into a ball. To this some add about 12 drops of the oil of cloves.

CORDIAL BALLS. Take
 Ginger powdered 1 dr.
 Allspice powdered 2 drs.
 Caraway seeds powdered 3 drs.
 Oil of cloves 12 drops

Mix the whole into a ball, with syrup or treacle.—Or,

Allspice powdered 3 drs.
 Caraway seeds powdered 6 drs.

Mix as before for a ball.

CORDIAL DIURETIC BALL. Take
 Hard soap 4 drachms.
 Common turpentine 4 drs.
 Ginger in powder 1 dr.
 Opium half a dr.

Mix the whole into a ball, with powdered caraway seeds, or powdered liquorice.

BALSAMS. Of these there are several kinds employed in veterinary medicine; they are of various degrees of thickness, but generally fluid. They resemble resins, and, like them, are soluble in spirits of

B A N

wine. The principal balsams used, are, the

BALSAM OF TOLU. This is a solid resinous substance, of a fragrant smell; it is sometimes employed in chronic cough, with a view to promote expectoration: it is given in doses of from two to three drachms.

CANADA BALSAM is a pure kind of turpentine; it is not often employed, being very expensive; in comparison with common and Venice turpentine—the latter of which is sufficiently pure, and equally efficacious.

BALSAM OF COPAIBA. This is a diuretic, in the dose of about one ounce; it has been also employed in chronic cough, in diseases of the lungs, and in flatulent cholera.

BALSAM OF PERU is a dark-coloured, fragrant-smelling fluid, with a strong burning or acrid taste; the dose is from two to three drachms; it is much more stimulating than any of the former; like the other balsams, it has been recommended in chronic cough, and in broken wind, in its incipient stages. It is also used as an external application to ulcers of an irritable nature.

FRIAR'S BALSAM has long been a popular remedy for wounds, ulcers, &c. It is called the Compound Tincture of Benzoin, in the London Dispensatory, and is thus directed to be made:

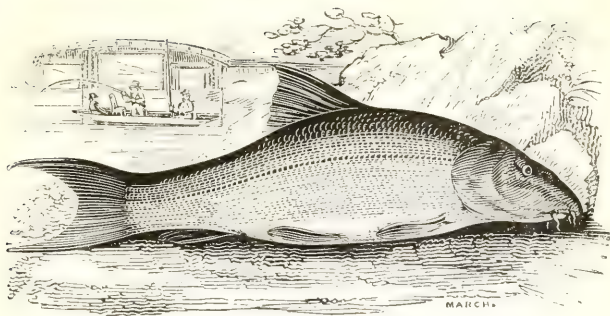
Take of Benzoin	3 oz.
Storax balsam strained	2 oz.
Balsam of Tolu	1 oz.
Extract of aloes	half an oz.
Rectified spirits of wine	2 pints.

Let them remain together for fourteen days, and strain the liquor through blotting paper.

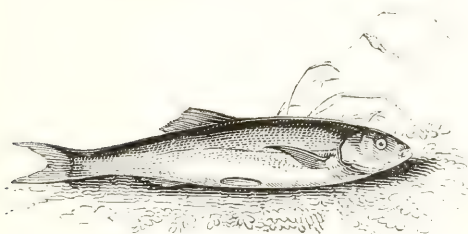
BALSAM OF GILEAD is much the same in its medical properties as Canada Balsam—strongly diuretic; it differs from the rest, principally in being of a much higher price. There was formerly another balsam much esteemed by the farriers of the old school, (or rather of no school at all,) in obstinate or chronic coughs, called Balsam of Sulphur, which was made by boiling sulphur and olive oil together. It is now very seldom employed.

BANDAGES, are very generally and properly used for swellings of the legs of horses, for weakness of the fetlock joints, and for windgalls. Bandages should be moderately tight, so as to support the joints, without impeding the circulation; they should be applied in such a manner as to press equally on every part, without causing any swelling either above or below

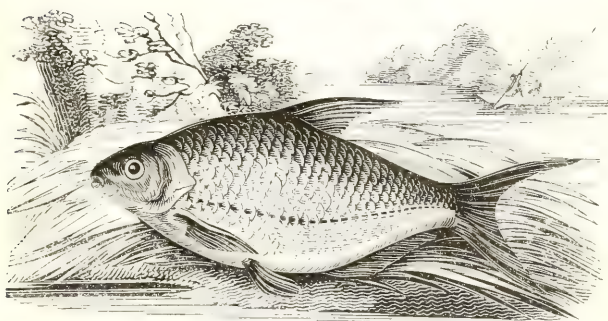
FISH. *Plate I.*



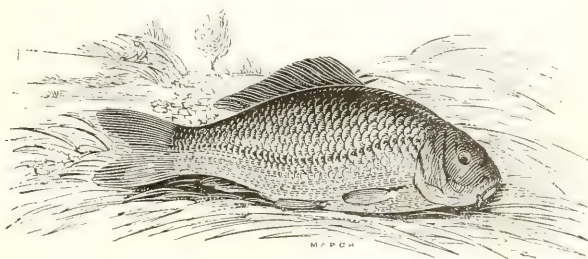
BARBEL, *p.* 43.



BLEAK, *p.* 63.



BREAM, *p.* 87.



CARP, *p.* 105.

the bandage; for if they do this, they are productive of much more harm than good. They should be made of strips of flannel, which is preferable to linen, on account of its elasticity being greater, about three inches wide, the length, must of course depend upon the part to which they are intended to be applied; for the legs they ought not to be shorter than two yards each. Practice is the only thing that will enable a man to put on a bandage properly, simple as it may appear, in order that it may press equally, and not be disturbed by the movements of the horse. The best plan is to begin by giving the first turn of the bandage downwards, immediately under the fetlock joint; from thence bring it upwards over the front of the joint, in an oblique manner, it is then to be brought down again so as to form a figure of eight about the joint, then continue it up the leg. Tear the extremity of the bandage down the middle, which will enable you to tie it round the horse's leg when you have finished rolling it.

BARB HOOK. A kind of hook formerly used in trolling.

BARB. The beard of a hook.

BARB. The barbary Horse. See **HORSE.**

BARBEL. The barbel only breed and thrive in rivers. In the Thames and part of the river Lea, there are many very fine and large: they are a handsome fish, but their flesh is coarse, and therefore considered but of little value for the table; yet, I have been told they eat very well when baked, with veal stuffing in their belly, as do the smaller sized split and fried. The barbel is prized for being a game fish, affording excellent sport to the angler, mixed with some labour and anxiety. When of large size, they are exceedingly crafty, sulky and strong, struggling a long time after they are hooked, often lying motionless at the bottom many minutes, then running under banks, or into large beds of weeds, in fact, trying every possible way to get off the hook, or break your line, which they certainly will effect if you are deficient in skill, or your tackle is in any way faulty.

The barbel bites very sharp and sudden; you must strike on the instant and smartly, immediately raise the top of your rod, let him run some considerable distance before you attempt to turn him, then endeavour to keep your fish away from the shelves and beds of weeds, take him from the current into deep and still water as soon as possible, and play him till he has quite

lost his strength before you attempt to land him.

Before you begin to angle for barbel, throw in plenty of ground bait, (you can hardly give them too much,) and continue to do so frequently while fishing for them: the best ground bait is made with soaked greaves and clay, mixed together in balls the size of an egg, also clay and gentles: indent a piece of clay, in which put some gentles, close it lightly, and the gentles will work out gradually when at the bottom of the river. Use this ground bait only in still holes. A quantity of worms, if they can be procured, chopped into small pieces, are likewise a good ground bait.

The barbel feed from May till October, all the day, but best in the morning and evening; indeed the chance of success increases with the coming night. They will even bite all night, and will feed very freely after rain, when the water is thickened a little.

BARBS. The disease so called in books of farriery, is an inflammation and enlargement of the terminations of the salivary ducts, which convey the saliva into the mouth, from the glands which secrete that fluid. They are two small substances sometimes called paps (as is the disease), and on drawing out the horse's tongue on one side, may be seen in the under jaw, one on each side the channel or groove in that part. The remedy proposed is cutting them off with a pair of scissors, and afterwards touching the parts with lunar caustic, or common salt. But this may be productive of serious consequences, by causing obstruction in the salivary ducts. Indeed such an operation is never necessary. When horses are cutting their teeth, they have generally these parts inflamed, sometimes indeed to such a considerable degree, as to render feeding extremely painful. In these cases the inflammation will soon subside, by bleeding, and syringing the parts, with a solution of alum, and feeding on bran mash.—Barbary horses are called barbs.

BARK, PERUVIAN, OR CINCHONA. There are three sorts of bark kept in the shops, the pale, the red, and the yellow; they differ very little in their effects; for though in the human subject bark is a very useful tonic and febrifuge medicine, it has little or no effect on the horse. It has been said to have been useful in the disease called *diabetes*, which is an excessive discharge of urine. When given to horses, the dose is eight drachms to one or two ounces.

BARREL. See FOWLING-PIECE.

BARS. The fleshy ridges at the upper part of a horse's mouth are so called; these are always more prominent in young horses than in old ones. They are sometimes so much enlarged towards the front teeth, as to project below the surface of them, becoming so painful as to prevent the horse from feeding properly: this is called the *lampas* (which see). There are the bars of the foot likewise.

BASILICUM. A well known digestive ointment, now called ointment of yellow rosin. It is composed of yellow rosin and bees' wax, of each a pound; olive oil, one pint. Melt the rosin and the wax together by a slow fire; then add the oil, and strain it, while it is hot, through a linen cloth.—By adding to four ounces of this ointment, one ounce of oil of turpentine, and one ounce of red precipitate, finely powdered, you have a digestive and stimulating ointment, which will be found very useful for dressing foul and indolent ulcers on the horse.

BATE. In falconry a hawk is said to bate or bait, when she flutters with her wings, either from perch, or fist, as if striving to get away.

BATTLE ROYAL was formerly (much more than at present) a favourite mode of fighting amongst COCKERS of the *Lower order*, who, upon the old maxim of "the more danger the more honour," became practical advocates for general destruction in the following way:—a battle royal may consist of any number of cocks, but is hardly known ever to exceed eight. The owner of each having made good his stake, or previously contributed his share of the prize or purse for which they fight, and all parties being ready, the cocks are most inhumanly pitted at the same moment, when a long and distressing scene ensues, to which there is no termination as long as a second cock is left alive, and the victory can only be obtained by the last survivor."

BAY. The colour of a horse. Bays have invariably black manes and tails, with either black or white legs; they are of different kinds, such as *light* or *yellow bays*, *brown bays*, *mottled bays*, and *dark bays*.

BAY. When a stag has been so long pursued, that, finding his strength nearly exhausted, he turns round, and, placing his haunches against some tree or wall, or anything, to prevent being surrounded, resolutely faces the hounds, keeping them *at bay* with his horns, till the sportsmen come up; when they are drawn off, and the deer is saved from destruction. When a deer takes *soil* (that is, plunges into the water) he will defend himself, and keep the hounds a long time *at bay*, provided he fathoms the lake or river so well as to keep the hounds swimming, and not go out of his own depth; if he loses which, and is obliged to swim, he is inevitably drowned by his numerous determined foes.

In fox hunting, when the fox takes to earth, which will be ascertained by the terrier lying well at him, provided the fox has not turned in the earth, in which case, and they are face to face, they are both *baying*, or keeping each other *at bay* till the fox is dug out.

BAY BOLTON was got by Grey Hautboy in 1705, and was bred by Sir M. Pierson.—He subsequently became the property of the Duke of Bolton.—In 1710, when five years old, he won the gold cup at York, beating eight 6 years old—a circumstance of rare occurrence: he also won two matches of Mr. Frampton's celebrated Dragon; after which he was kept as a stallion, and was the sire of Sloven, Fearnought, Starling, Syphax, Camilla, Gipse, and Whitefoot. He died at Bolton Hall, Yorkshire, 1736, aged 31;—he was a capital runner, and proved an excellent stallion.

BAY BOLTON. Bred by Mr. Vernon; foaled in 1777: got by Matchem, dam by Regulus, out of an own sister to the Ancaster Starling. He was long in the possession of his late Majesty George III. and was for many years the favourite stallion at Hampton court.

BAY MALTON. Bred by the Marquis of Rockingham; foaled in 1760; got by Sampson, dam by Cade, and grandam by Old Traveller. It is supposed that he never covered as a stallion, or if he did, he produced no horses of note. He won more prizes of consequence and value than any horse of his time.

BEAGLE. A beagle is the smallest of the hound tribe, and principally, if not altogether, used in the pursuit of the hare. All those who have written on the subject of beagles, have never been sufficiently definite in their mode of expression, as to give a clear

idea of the animal to those who were not previously acquainted with it: for the word beagle, although it designates the smallest kind of hound, also signifies one of such a peculiar formation, as to be obvious at first view. Thus, the animal under consideration is remarkable for an elongated form, and short legs; and it presents to the eye altogether the appearance of a dwarf hound. Although the talbot, or Old English blood hound may be very justly considered as the original stock, whence have sprung all the various ramifications which we see at the present day, yet the peculiar cross which produced the beagle is now unknown. They were originally employed for the purpose of coursing: they would trail a hare to her form, or, by opening, give notice that one was at no great distance. This was not exactly a fair mode of sporting, as the hare was certainly overmatched when a beagle was employed with greyhounds; as, if she made her way into a thicket or otherwise blinked her long-legged pursuers, she was still very liable to be started again by the beagle, in which case her destruction was certain. On this account beagles were laid aside by honourable sportsmen, as far as related to coursing; and those who might be considered as pot-hunters thus became ashamed of a practice which they saw despised by those who sought diversion fairly.

The beagle, however, was too interesting an animal to be altogether abandoned; and though he was withdrawn from the assistance of the greyhound, he was nevertheless adopted in the chase of the hare; beagles were formed into regular packs, and their hunting is not only highly interesting from their diminutive form, but from the busy ardour which they manifest in the pursuit. It has been generally supposed that beagles are very slow in the chase, which is certainly a very mistaken notion; and those who have propagated such an idea have never seen them run, but formed their opinion from the diminutive size of the hound: they are not so swift as the fox hound, or yet as the sharp-nosed northern harrier, but they are superior in speed to the southern hound; and, if they are well-bred, will generally kill a hare in about an hour, or with a good scent, in much less time. On this subject, a writer has remarked, "beagles, rough and smooth, have their admirers; their tongues are musical, and they go faster than the southern hounds, but tail much. They run so close to the ground as to enjoy the scent much better than taller dogs, especially when the atmosphere lies low. In an inclosed country (continues the writer) they do best, as they are good at trailing or default, and for hedge-rows; but they require a clever huntsman; for, out of eighty couple in the field, during a winter's sport (he observes) not four couple could be depended on." Of the two sorts, he prefers the wire-haired, as having good shoulders and being well filleted. "Smooth haired beagles (he continues) are commonly deep hung, thick lipped, with large nostrils, but often so soft and bad quartered as to be shoulder-shook and crippled the first season they hunt; crooked legs, like the Bath turnspit, are frequently seen among them; after two hours' running, many of them are disabled, and the

B E A G L E

huntsman may proceed to hunt the hare himself, for he will never receive any assistance from the greater part of them ; their form and shape sufficiently denote them not to be made for hard exercise." Now, all this rhodomontade amounts to this, that the writer possessed little knowledge of a subject, on which he so confidently expressed an opinion ; and that the crude notion which he had thus formed, was founded upon individuals which he perhaps had seen, but which, supposing his estimate correct, were exceedingly ill-bred animals. It is very well known, that no creature is more susceptible of change than the dog ; and the beagle, like all other varieties, may be bred (comparatively speaking) to any size, or any quality. There are " beagles, rough or smooth ;" though the nature of the coat has, in all probability, but little influence on the quality of the dog ; there are excellent animals of both kinds ; but the latter are much more general, and, if appearance alone be consulted, certainly preferable. Good sized bony beagles (about twelve inches in height) are admirably calculated for the pursuit of the hare ; they should have large heads, chubby rather than long, as, thus formed, they cannot fail to possess exquisite olfactory organs (a small narrow head in a dog is incompatible with a good nose) ; ten or twelve couple of these form a good pack, with musical voices (for the size of the head will be found to have much influence on the cry) ; and if two or three small southern hounds be added (or small hounds, with much of the southern blood) it will render the cry more melodious and more delightful. Where the writer above-quoted, says, " they run so close to the ground, as to enjoy the scent better than taller dogs," evinces at once his ignorance of the subject, as hounds of any kind never run so well or so sure, as when they can carry a good head ; or, in other words, when they can run breast high. It may seem paradoxical in expression, but when the scent is said to lie well, it rises from the ground, as it were, and thus the dog is enabled to follow his game without putting his nose to the ground. As to beagles being " good at trailing or default," this entirely depends upon their noses, and the manner in which they are bred ; and this remark will be found equally applicable to all kinds of hounds. It has been already observed, that the manner in which the beagle was originally produced is at present unknown ; but those who are desirous of procuring these interesting little hounds, may suit their own taste as to size, strength, &c. as they are to be met with, in great variety, in almost all parts of the kingdom. The large bony beagle, mentioned above, is well calculated to endure fatigue, and to shew good sport, while the smaller kinds will not answer so well ; and as to the very smallest, distinguished by the name of the lap-dog beagle, though they are very pretty in appearance, and may occasionally kill a hare, yet ultimate satisfaction cannot be expected from their exertions. Finally, if an opinion is to be formed from the appearance of the animal of the cross whence sprung the dog under consideration, it might seem that the deep-mouthed hound, and something of the turnspit breed, had been the original progenitors.

BEAM, in the head of a deer, is the basis, or part bearing the antlers, royals, and tops.

BEAM FEATHERS, are the long feathers of a hawk's wing.

BEAR. The bear is an animal, which is occasionally exhibited in this country in a very grotesque attitude for the amusement of children and the vulgar. As to bear-baiting, it has been for some time on the decline, and will, in all probability, at no distant period, be utterly extinct. Of this animal, there are three different kinds, the brown bear of the Alps, the black bear of North America, which is smaller, and the great Greenland white bear. These, though different in their forms, are most likely of the same original, and owe their chief variations to food and climate. They have all the same habitudes, being equally carnivorous, treacherous, and cruel; and it must, at the same time, be observed that brown as well as black bears are found in America, while to those of Europe the same remark may be equally applied. At all events, the bear tribe are all remarkable for having the soles of the feet very long, extending completely to the heel, which gives them a very firm tread. From the length and sharpness of their claws, they are all able to climb trees in search of prey, or to escape from their enemies.

The black and brown, or common bears, are inhabitants of the forests in the Northern regions of Europe, will feed on either animal or vegetable substances, and are said to be particularly fond of honey. In search of this, they climb trees in order to get at the nests of wild bees. The bear will also catch and devour fish; and occasionally frequents the banks of rivers for that purpose. He is a savage and solitary animal, living in the most retired and unfrequented parts of the forest. Here it retires alone, and passes some months of the winter without provisions, or without stirring abroad. However, this animal is not entirely deprived of sensation, like the bat or the dormouse, but seems rather to subsist upon the exuberance of its former flesh; and only feels the calls of appetite when the fat it had acquired in summer begins to be entirely wasted away. In this manner, when the bear retires to its den to hide for the winter, it is extremely fat; but at the end of forty or fifty days, when it comes forth to seek for fresh nourishment, it seems to have slept all its flesh away. It is a common report, that, during this time, they live by sucking their paws, which is a vulgar error that scarcely re-

quires confutation. These solitary animals couple in autumn, but the time of gestation with the female is not well known;—the female takes great care to provide a proper retreat for her young. The male and female by no means inhabit the same den; they have each their separate retreat, and are seldom seen together but upon the accesses of genial desire.

The voice of the bear is a kind of growl, interrupted with rage, which is often capriciously exerted; and though this animal seems gentle and placid to its master, when tamed, yet it is still to be distrusted and managed with caution, as it is often treacherous and resentful without cause. But, notwithstanding the fierceness of this animal, the natives of those countries where it is found, hunt it with great perseverance and alacrity. The least dangerous method of taking it is by mixing brandy with honey and placing it in its way, by which it will speedily become intoxicated. In Canada, where black bears are very common, and where their dens are frequently made in trees that are hollow towards the top, they are taken by setting fire to their retreat, which are often above thirty feet from the ground. By this means the bear is forced to shew himself, and is shot by the hunters.

The Indian tribes adopt the most singular ceremonies in their chase of the bear, of which Charlevoix, in his *Travels in North America*, gives the following account:—"The chase of these animals is a matter of the first importance, and is never undertaken without abundance of ceremony. A principal warrior first gives a general invitation to all the hunters. This is followed by a most strict fast of eight days, a total abstinence from all kinds of food; notwithstanding which the day is passed in continual song. This is done to invoke the spirits of the woods to direct the hunters to the places where there are abundance of bears. They even cut the flesh in divers parts of their bodies to render the spirits more propitious. They also address themselves to the manes of the beasts slain in the preceding chases, as if these were to direct them in their dreams to plenty of game. One dreamer alone cannot determine the place of the chase; numbers must concur; but as they tell each other their dreams, they never fail to agree. This may arise either from contrivance, or from a real agreement in their dreams, on account of their thoughts being perpetually turned on the same thing. The chief of the hunt now gives

a great feast, at which no one dares to appear without first bathing. At this entertainment they eat with great moderation, contrary to their usual custom. The master of the feast touches nothing; but relates to the guests ancient tales of the wonderful feats of former chases; and fresh invocations to the manes of the deceased bears conclude the whole. They then sally forth amidst the acclamations of the village; equipped as if for war, and painted black. Every able hunter is on a level with a great warrior; but he must have killed his dozen great beasts before his character is established; after which his alliance is as much courted as that of the most valiant captain. They now proceed on their way in a direct line; neither rivers, marshes, nor other impediments stop their course, driving before them all the beasts they find. When they arrive at the hunting ground, they surround as large a space as they can with their company; and then contract their circle, searching at the same time every hollow tree, and every place fit for the retreat of a bear: and they continue the same practice till the time of the chase is expired. As soon as a bear is killed a hunter puts into his mouth a lighted pipe of tobacco, and blowing into it fills the throat with the smoke, conjuring the spirit of the animal not to resent what they are going to do to its body, nor to render their future chases unsuccessful. As the bear makes no reply, they cut out the string of his tongue, and throw it into the fire. If it crackles and shrivels up (which it is almost sure to do) they accept it as a good omen; if not, they consider that the spirit of the bear is not appeased, and that the chase of the next year will be unfortunate. The hunters live well during the chase on provisions which they bring with them. They return home with great pride and self-complacency; for to kill a bear forms the character of a complete man. They give a great entertainment, at which they make it a point to leave nothing uneaten. The feast is dedicated to a certain genius (apparently that of gluttony) whose resentment they dread if they do not eat every morsel, and even sup up the melted grease in which the meat was dressed. They sometimes eat till they burst, or bring on themselves some violent disorder. The first course is, the greatest bear they have killed; without even taking out the entrails or skinning it; contenting themselves with singeing the skin, as is practised with hogs.

The bear is by no means deficient in

courage, and never fails to make every possible resistance. A number of extraordinary recitals have been published by the Americans respecting their encounters with bears, some of which, it must be confessed, seem to partake somewhat of that hyperbole for which the transatlantic republicans are so celebrated. The following, however, may be received as authentic perhaps, as Campbell has related it in his *Travels in North America*. A gentleman and his son (near a house in which the author then lodged, on Spoon Island) had been out at hay making, and were luckily armed with pitchforks; and seeing a monstrous bear quite close to the river, they pressed so hard upon him as to drive him into the water. They then thought they had him secure, as there was a boat near them, to which they immediately ran, and having pursued and come up with him, they struck and pelted him with the pitchforks and shafts till they were broken in pieces. The exasperated monster now, as they had no weapon to annoy him, turned the chase on his adversaries, and, fixing his paws on the gunnel of the boat, attempted to get in. They did all they could to keep him out, but their efforts were in vain. He got in: thus circumstanced, they had their choice either to jump into the water, or continue in the boat and be torn to pieces: they chose the former and swam ashore. The bear made no attempt to follow, but continued in the boat; and, seeing the animal so calm, they ran immediately to the house for guns; and, upon their return, found him sitting in the boat, dipping one of his paws now and then in the water, and washing his wounds: on which, levelling their pieces, they shot him dead. The landlord of the house where this recital was given, showed one of the paws of this bear, which, on account of its great size, he kept as a curiosity; and added, that the bear was as big as a yearling calf.

The modern Russian method of hunting the bear differs very much from the mode just described, and is worthy of recital for two reasons: viz. in the first place, it is little known in this country; secondly, it exhibits a curious contrast, as well as shows some very singular characteristics of this animal. In winter, when bears are extremely sluggish, the hunters approach the den of the bear, which is generally formed in some thicket; and, cutting a sort of avenue before and behind it, sufficient for bruin to pass along, they line each side of it with a simple net; and

such is the animal's aversion to any thing which appears like a toil, that he will not even attempt to break through what could not resist his force for one moment: part of the company place themselves in ambush at the front end of the avenue, while the other go behind, and make as much noise as possible, to drive him in the opposite direction; when he is either shot, or killed by the spear.

An instance is also given of a Russian huntsman, who, having strayed some distance from his companions, was met by a very large bear. The noise made by the man and the bear drew the hunting party to the spot, when they beheld a monstrous bear on his hind legs fighting with the man, who unfortunately happened to be without his *couteau de chasse*, the usual and useful weapon upon such occasions. The fellow held the bear, though taller than himself, by the ear, at arm's length, and with his left hand was striking him on the opposite side the head, every time he offered to bite or claw the extended arm, which prevented his being hugged. Count Alexy Rossomofsky, alarmed for the safety of the huntsman, desired that he would let go the animal, that some of the party might shoot him; but the hardy Russian said the bear was *only in joke*, though he had then clawed his face in such a manner, that none of them knew which of the men it was who was thus engaged in single combat. At this moment, a number of his companions came running up, and, instead of attempting to kill the bear, instantly took off their belts, and, coming behind him, still struggling with their comrade, and growling as a bear always does when he is attacked, slipped one belt into his mouth, and two more round his body, and thus completely subdued and took him alive.

Another curious circumstance attending a Russian bear hunt, is the manner in which the peasants trace these animals out in summer, by what may sportingly be called their *seat or form*. Though the bear will commit depredations on the flock, he is, nevertheless, fond of green corn, and makes havoc amongst the growing crops: his manner of feeding is remarkable, and in this act he makes what the peasants call his *form*, and by which they trace him from one part to another. When a bear finds a field of corn to his taste, either in the milky or ripe state of the grain, he chooses a soft spot amongst it, where he sits on his buttocks, and eats round him as far as he can reach, turning on his seat

as a centre, and thus makes an indention in the earth, round and smooth, like a large basin. Hence the peasants ascertain the size of his hind quarters; and, measuring from that the cropped circle of the corn, they judge of his length. The lazy animal, it seems, eats all around him as far as he can reach, when, removing to a fresh spot, he again devours in the same manner. These forms, by the comparative freshness of their appearance, apprise his pursuers of their approach to the animal. Thus the bear is generally discovered in summer, and shot. When no more than three take the field in pursuit of a bear, the following mode is adopted: as soon as the bear is found, the three take their stations at a certain distance and direction from each other; one of them fires at the animal, on which he immediately makes towards him; the second then fires, to draw him to the other side; and the third does the same, to give him a third direction. By the time these manœuvres are executed, the first sportsman has again loaded; and in this manner they load and fire alternately, till they have despatched their game.

In Finland the chase of the bear is very different. The Finns erect, about the middle of a tree, in the bear's favourite haunts, a small round scaffold, much in the style of one of the tops of a ship. On this a man takes his station, and patiently awaits the approach of bruin to the foot of the tree, (attracted by honey or other favourite food placed there as a bait) and shoots at him through holes made for that purpose in his stage. If the animal be not disabled, he furiously mounts the tree, but is stopped in his course by the round top, and the hunter of course has a most favourable opportunity of despatching him, being armed with an axe to chop off the bear's paws, should they appear above the stage in attempting to mount it.

If the bear ever existed in this country in a state of unlimited freedom, it must have been at a period very remote, though the chase of this animal is thus described in some of the old sporting-book. If they be hunted, they will follow a man, but not run upon him unless they are wounded. They are very strong in their paws, in such sort, that they will so hug a man or dog, as to break his back, or squeeze his guts out of his belly: with a single paw they will pull a dog to their tearing and devouring mouth. They bite very severely; for they will bite a man's head to the very brains; and for an arm or leg,

they will crush it as a dog may do a slender bone of mutton.

When they are hunted, they are so heavy that they make no speed, and so are always in sight of the dogs: they stand not at bay as a boar, but fly wallowing; but if the hounds stick in, they will fight valiantly in their own defence; sometimes they stand up straight on their hinder feet; and then take that as a sign of fear and cowardice; they fight strongest and stoutest on all four.

They have an excellent scent, and smell further off than any other beast except the boar; for in a whole forest they will smell out a tree laden with mast.

They may be hunted with hounds, mastiffs, or greyhounds; and they are chased and killed with bows, bear spears, darts, and swords; so they are also taken in snares, caves, pits, and other engines.

They go sometimes a gallop, at other times an amble; but they go most at ease when they wallow. When they come from their feeding, they beat commonly the highways and beaten paths; and where-soever they go out of the highways, there you may be sure they are gone to their dens; for they use no doublings nor subtleties.

The best finding of a bear is with a lame hound; and yet he who is without one may trail after a bear as we do after a buck or roe, and you may lodge and hunt them as you do a buck. For the more speedy execution, mingle mastiffs with your hounds; for they will pinch the bear, and so provoke her to anger, until at last they bring her to the bay, or else drive her out of the plain into the covert, not letting her be at rest till she fight in her own defence. Such is the language of the sportsmen of former periods.

Bears are found in almost all the Alpine and mountainous regions of continental Europe (and indeed in most parts of the world); they are not often hunted, at least not in a formal manner; but they are apt to commit depredations on the flock, (and when pressed by hunger will even attack men), as well as sometimes destroy children; they are shot as often as an opportunity offers.

It is well known that the bear may, with some little difficulty, be rendered tame and docile; and it has then the appearance of being mild and obedient to its master; but it is not to be trusted without caution. It may be taught to walk on its hind feet, lay hold of a pole with its fore

paws, and perform various tricks to entertain the multitude, who are highly pleased with the awkward measures of this rugged animal, which it seems to suit to the sound of an instrument, or to the voice of its leader. But to give the bear this kind of education, it is necessary to have it taken young, and to accustom it early to restraint and discipline. An old bear will suffer no restraint without manifesting the most furious resentment: neither the voice nor the menaces of his keeper have any effect upon him; he equally growls at the hand that is held out to feed, and at that which is raised to correct, him.

It must be admitted, however, that much cruelty is practised in teaching this animal to walk upright, and to regulate its motions to the sound of the pipe. Bear-baiting is now but little practised; and the reader need hardly be told, that in this diversion the bear was fastened to a stake, having about six or eight yards of loose rope, which enabled the animal to describe a considerable circle, and allowed it sufficient room for the exercise of its strength, and consequently for its defence against its assailants. Bull-dogs are the best calculated for the purpose; and indeed a dog will not face a bear unless he is bred very near the bull-dog, if we except the mastiff, some of which will run at the bear, while others will refuse; and consequently entire dependance cannot be placed upon them. A bear is more than a match for either bull-dog or mastiff singly; but two good dogs of either kind would very soon destroy him.

The white Greenland polar bear differs greatly, both in figure and dimensions, from those already described; and though it preserves in general the external form of its more southern kindred, yet it frequently grows to double the size. The brown bear is made rather strong and sturdy; the Greenland bear, on the contrary, though covered with very long hair, and apparently bulky, is nevertheless more slender; in short, all the variations of its figure and colour seem to proceed from the coldness of the climate where it resides, and the nature of the food it is supplied with.

The polar bears are animals of tremendous fierceness and strength. Barentz, in his voyage in search of a north-east passage to China, witnessed the most horrid proofs of their ferocity in the island of Nova Zembla, where they attacked his seamen, seizing them in their mouths, carrying them off with the utmost ease, and

devouring them even in the sight of their comrades.

Not many years ago, the crew of a boat belonging to a ship in the whale fishery shot at a white bear, and wounded it. The animal immediately set up the most dreadful howl, and ran along the ice towards the boat. Before he reached it, a second shot was fired, which hit him. This served but to increase his fury. He presently swam to the boat, and, in attempting to get on board, placed one of his fore feet upon the gunnel; but a sailor, having a hatchet in his hand, cut it off. The animal still, however, continued to swim after them till they arrived at the ship; and several shots were fired at him which took effect; but, on reaching the ship, he immediately ascended the deck; and the crew having fled into the shrouds, he was pursuing them thither, when a shot laid him dead upon the deck.

The usual food of these animals consists of seals, fish, and the carcasses of whales; but when on land, they prey on deer and other animals, as hares, young birds, &c. They likewise eat various kinds of berries which they happen to find. They go on the flakes of ice in search of seals, and also attack the arctic walrus; but this creature makes a gallant defence with its long tusks, and sometimes comes off victorious. They are said to be frequently seen in Greenland in great droves, allured by the smell of the flesh of seals; and they will sometimes surround the habitations of the natives, and attempt to break in; when, it is added, the most successful method of repelling them is the smell of burnt feathers.

The affection between the parent and the young is so great, that they will sooner die than desert each other in distress. Cartwright, in his *Journal of a Residence on the Coast of Labrador*, particularly mentions this circumstance, and says that it is highly dangerous to shoot the cub of a white bear, unless you first destroy the dam, as she will not fail to attack you with the utmost fury the moment she perceives her cub to be wounded. The following is a striking instance of the maternal affection of these animals: While the *Carcass* frigate, which went out some years ago to make discoveries towards the North Pole, was locked in the ice, early one morning the man at the mast head gave notice that three bears were making their way very fast over the frozen ocean, and were directing their course towards the ship. They had no doubt been invited by

the scent of some blubber of a sea-horse, which the crew had killed some days before, and which had been set on fire, and was burning on the ice at the time of their approach. They proved to be a she bear and her two cubs; but the cubs were nearly as large as the dam. They ran eagerly to the fire, and drew out of the flames part of the flesh of the sea-horse, that remained unconsumed, and devoured it voraciously. The crew from the ship threw great lumps of the flesh of the sea-horse, which they had still remaining, upon the ice: these the old bear fetched away singly, laid every lump before the cubs as she brought it, and, dividing it, gave to each a share, reserving only a small portion for herself. As she was fetching away the last piece, the sailors levelled their muskets at the cubs, and shot them both dead; and in her retreat they wounded the dam, but not mortally. It would have drawn tears of pity from any but unfeeling minds, to have marked the affectionate concern expressed by the poor beast in the last moments of her expiring young. Though she was herself dreadfully wounded, and could but just crawl to the place where they lay, she carried the lump of flesh which she had fetched away, as she had done before, tore it in pieces, and laid it before her young; and when she saw that they refused to eat, she laid her paws first upon one, and then upon the other, and endeavoured to raise them up. All this while, it was pitiful to hear her moan. When she found she could not stir them, she went off, and when she had got to some distance, looked back and moaned; and that not availing her to entice them away, she returned, and smelling round them, began to lick their wounds. She went off a second time as before, and, having crawled a few paces, looked again behind her, and for some time stood moaning: but still her cubs not rising to follow her, she returned to them again, and with signs of inexpressible fondness went round, pawing them and moaning. Finding, at last, that they were cold and lifeless, she raised her head towards the ship, and uttered a growl of despair, which the seamen returned with a volley of musketry. She fell between her cubs, and died licking their wounds.

Mr. Hearne says that the males of the polar bear are so much attached to their mates, that he has seen one of them, when a female was killed, come and put his two fore paws over her, and in this position suffer himself to be shot rather than quit her.

White bears are sometimes found in Iceland; but not being natives of the island, they are supposed to have floated from the opposite coast of Greenland on some of the huge masses of ice that are detached from those shores. After so long an abstinence as they must necessarily have undergone in the voyage, they are reduced by hunger to attack even man, should he come in their way. But Mr. Horrebrow informs us, that the natives are always able to escape their fury, if they can throw in their way something to amuse them. A glove (he says) is very proper for the purpose; for the bear will not stir till he has turned every finger of it inside out, and this takes up sufficient time to afford the man to escape.

During the winter these animals retire, and bed themselves deep in the snow, or under the fixed ice of some eminence, where they pass, in a state of torpidity, the long and dismal arctic night, and reappear only with the return of the sun.

They grow exceedingly fat, one hundred pounds weight of that substance having been taken from a single bear.

BEAR-BAITING. In baiting the bear, he is generally fastened to a stake or post by a chain passed round his body, allowing him sufficient liberty to defend himself from the dogs, which are then let loose at him.

BEARING-REIN. See **HARNESSES**.

BEASTS of the **FOREST**, are the hart, the hind, the hare, the boar, and the wolf.

BEASTS of the **CHASE**, are the buck, the doe, the fox, the roe, and the marten.

BEASTS and **FOWLS** of **WARREN**, are the hare, the coney, the pheasant, and the partridge.

BEAT. *To beat* is a term used of a stag, which runs first one way, and then another; he is then said *to beat* up and down. Also, the noise made by coney in rutting time, which is called beating or tapping. In Coursing, *to beat* for a hare is endeavouring to start one, in which case people generally beat the hedges and covers with sticks or staves.

BEAVER. The beaver is a native of most of the northern parts of Europe and Asia, but is principally found in North America. There is reason to suppose that it was once an inhabitant of Great Britain, as Geraldus Cambrensis says, that these animals frequented the River Tievi, in Cardiganshire, and that they had from the Welsh a name, signifying "the broad-tailed animals." The skins were valued by the laws of Howel Dda, in the tenth century,

at the great sum of a hundred and twenty pence each; and they seem to have constituted the chief finery and luxury of those days. The general length of the beaver is about three feet. The tail is oval, nearly a foot long, and compressed horizontally, but rising into a convexity on its upper surface: it is perfectly destitute of hair, except at the base, and is marked out into scaly divisions, like the skin of a fish. The hair is very fine, smooth, glossy, and of a chesnut colour, varying sometimes to black; and instances have occurred in which these animals have been found white, cream-coloured, or spotted. The ears are short, and almost hidden in the fur.

No other quadrupeds seem to possess so great a degree of natural sagacity as the beavers. The front teeth of this animal are very strong, and well adapted to the purpose of gnawing wood. They feed on leaves, and the bark of trees; and when they eat, they sit upright, and carry the food to their mouth in the same manner as the squirrel tribe; and it has been proved that the beaver subsists wholly on vegetable substances, and will eat no animal food whatever.

Beavers generally live in associated communities of two or three hundred, inhabiting dwellings which they raise to the height of six or eight feet above the water. They select, if possible, a large pond, in which they raise their houses on piles, forming them either of a circular or oval shape, with arched tops, thus giving them, on the outside, the appearance of a dome, while they within somewhat resemble an oven. The number of houses is in general from ten to thirty. If the animals cannot find a pond to their liking, they fix on some flat piece of ground with a stream running through it. In making this a suitable place for their habitations, a degree of sagacity and intelligence, of intention and memory, is exhibited, approaching, in an extraordinary degree, to the faculties of the human race. The first object is, to form a dam. To do this, it is necessary they should stop the stream, and, of course, that they should know in which direction it runs. This seems a wonderful exertion of intellect, as they always do it in the most favourable place for their purpose, and never begin at a wrong part. They drive stakes five or six feet long into the ground, in different rows, and interweave them with branches of trees, filling them up with clay, stones, and sand, which they ram so firmly down, that, though the dams are frequently a hundred feet long, they

will bear a great weight, and Cartwright says he has walked over them with the greatest safety. These are ten or twelve feet thick at the base, gradually diminishing towards the top, which is seldom more than two or three feet across. They are exactly level from end to end, perpendicular towards the stream, and sloped on the outside, where grass soon grows, and renders the earth more united.

The houses are constructed, with the utmost ingenuity, of earth, stones, and sticks, cemented together, and plastered on the inside with surprising neatness. The walls are about two feet thick, and the floors so much higher than the surface of the water, as always to prevent them from being flooded. Some of the houses have only one floor; others have three. The number of beavers in each house is from two to thirty. These sleep on the floor, which is strewn with leaves and moss; and each individual is said to have its own place. When they form a new settlement, they begin to build their houses in the summer; and it costs them a whole season to finish the work, and lay in their winter provisions, consisting principally of bark and the tender branches of trees, cut into certain lengths, and piled in heaps under the water.

The houses have each no more than one opening, which is under the water, and always below the thickness of the ice, by which means they are secured from the effects of frost. Beavers seldom quit their residence, unless they are disturbed, or their provisions fail. When they have continued in the same place three or four years, they frequently erect a new house annually, but sometimes merely repair their old one. It often happens that they build a new house so close to the old, that they cut a communication from one to the other; and this may have given rise to the idea of their having several apartments. When their houses are completely finished, they will carry on fresh works; nor do they desist even when the pond is frozen over, but continue their employments for some nights after (if the frost is not too severe) through a hole in the ice, which they keep open for the purpose.

During the summer they forsake their houses, and ramble about from place to place, sleeping under the covert of bushes near the water side. On the least noise, they betake themselves to the water for security; and they have sentinels, which, by a certain cry, give notice of the approach of danger. In the winter they

never stir out, except to their magazines under water; and during that season they become excessively fat.

The following is the account which Du Pratz gives of the beavers of Louisiana. At the head of one of the rivers of Louisiana he discovered a beaver dam. Not far from it, but hidden from the sight of the animals, he and his companions erected their hut, in order to watch the operations at leisure. They waited till the moon shone pretty bright; and then, carrying branches of trees in their front, to conceal themselves, they went with great care and silence to the dam. Du Pratz ordered one of the men to cut, as silently as possible, a gutter, about a foot wide, through it, and retire immediately to the hiding-place.

As soon as the water through the gutter began to make a noise, we heard (says the writer) a beaver come from one of the huts, and plunge in. We saw him get upon the bank, and clearly perceived that he examined it. He then, with all his force, gave four distinct blows with his tail, when immediately the whole colony threw themselves into the water, and arrived upon the dam. When they were all assembled, one of them appeared, by muttering, to issue some kind of orders; for they all instantly left the place, and went out on the banks of the pond in different directions. Those nearest to us were between our station and the dam, and therefore we could observe their operations very plainly. Some of them formed a substance resembling a kind of mortar; others carried this on their tails, which served as sledges for the purpose. I observed that they put themselves two and two, and that each of a couple loaded his fellow. They trailed the mortar, which was pretty stiff, quite to the dam, where others were stationed to take it; these put it into the gutter, and rammed it down with blows of their tails.

The noise of the water soon ceased, and the breach was completely repaired. One of the beavers then struck two blows with his tail; and instantly they all took to the water without noise, and disappeared.

M. Du Pratz and his companion afterwards retired to their hut to rest, and did not again disturb these industrious animals till the next day. In the morning, however, they went together to the dam to observe its construction, for which purpose it was necessary that they should cut a part of it down. The depression of the water in consequence of this, together with the

noise they made, roused the beavers again. The animals seemed much disturbed by these exertions; and one of them, in particular, was observed several times to come pretty near the labourers, as if to examine what passed. As M. Du Pratz apprehended that they might run into the woods if further disturbed, he advised his companions again to conceal themselves.

One of the beavers then ventured (continues our observer) to go upon the breach, after having several times approached and returned like a spy. He surveyed the place, and then struck four blows, as he did the preceding evening, with his tail. One of those that were going to work passed close by me; and as I wanted a specimen to examine, I shot him. The noise of the gun made them scamper off with greater speed than a hundred blows of the tail of their overseer could have done. By firing at them several times afterwards, they were compelled to run with precipitation into the woods. M. Du Pratz then examined their habitations.

Under one of the houses he found fifteen pieces of wood, with the bark in part gnawed off, apparently intended for food. Round the middle of this house, which formed a passage for them to go in and out at, he found no less than fifteen different cells. These habitations were made by posts fixed slantingly upwards to a point; and in the middle was the floor, resting firmly on notches in the posts.

Beavers bring forth their young towards the end of June, and generally have two at a time, which are, in nine instances out of ten, male and female. They continue with their parents till they are full three years old, when they pair off, and form houses for themselves. If, however, they are undisturbed, and have plenty of provisions, they remain with the old ones, and thus form a double society. Instances have occurred of beavers having been perfectly domesticated. Major Roderfort, of New York, related to Professor Kalm, that he had a tame beaver above half-a-year in his house, where he went about quite loose, like a dog. The major gave him bread, and sometimes *fish*, of which he was very fond. As much water was put into a bowl as he wanted. All the rags and soft things he could meet with, he dragged into the corner where he was accustomed to sleep, and made a bed of them. The cat in the house, having kittens, took possession of his bed; and he did not attempt to prevent her. When the cat went out, the beaver often took

the kitten between his fore paws, and held it to his breast, as if to warm it: he seemed to doat upon it; yet, as soon as the cat returned, he always restored to her the kitten. Sometimes he grumbled, but never attempted to bite.

The skin of the beaver has two kinds of hair: the lower, immediately next the hide, is short, implicated together, and as fine as down; the upper hair grows more sparingly, and is both thicker and longer. The latter is of little value; but the former is wrought into hats, and other articles of dress.

The hunters prefer the winter season for seeking out the habitation of the beavers. They stop up the entrance to them on the side next the water, with stakes, and enlarge the vent-hole which they find on the land side: this is done for the purpose of putting through it a dog, which is so trained that he holds the beaver with his teeth, and suffers himself to be drawn out by the hind legs. The Indians about Hudson's Bay first drain off the water of the dam, and then, covering the houses with nets, break in at the top; on which the affrighted beavers, running through the door to escape, become entangled in the meshes.

In some parts of Lapland, beavers are caught in traps made of the twigs of fir trees. The top of these the hunters fasten to a small branch of poplar, of which the animals are very fond. The beaver gnaws away this fastening, is let down, and caught. But it is remarked, that wherever two have been together, the one has always set the other at liberty. A good skin will weigh about two pounds.

The medicinal substance called *castor* is produced in the inguinal glands of these animals; and each individual, both male and female, has usually about two ounces. That produced by the Russian beavers is more valuable, and sells at a much higher price, than that which is imported from America. The flesh is good eating: it is usually preserved (the bones being first taken out) by drying it in the smoke.

It frequently happens that single beavers live by themselves in holes which they make in the banks of rivers, considerably under the surface of the water, working their way upward to the height of many feet. These are called by the hunters *hermits* or *terriers*. Like the rest, they lay up a store of provisions for the winter. It is supposed by Cartwright that their separation from society originates in attachment and fidelity; that, having by some accident lost their mate, they will

not readily pair again. Whatever may be the cause, it has been remarked, that they have invariably a black mark on the skin of their backs, which is called a saddle, and by which they are easily distinguished from the others.

Their motions on land are very slow; and being timid animals, they are easily killed, though possessing teeth so sharp and strong, as to enable them to make a stout resistance. If they happen to be met on land by a man, they sit down, and cry like a child.

The beaver is the only creature among quadrupeds that has a flat broad tail, covered with scales, which serves as a rudder to direct its motions in the water. It is the sole quadruped that has membranes between the toes on the hind feet only, and none on the fore feet, which supply the place of hands, as in the squirrel. In short, it is the only animal that in its fore parts entirely resembles a quadruped, and in its hind parts seems to approach the nature of fishes, by having a scaly tail. It is somewhat shaped like a rat, except the tail, which, as already observed, is flat and scaly, somewhat resembling a neat's tongue at the point.

BED OF SNAKES. A knot of young snakes. Also, a roe is said to bed when she lodges in a particular place.

BEDDING. On the bedding of horses, there has been a variety of opinions. Horses that work hard should always be well littered. During the day, the bedding or litter, should be removed; in fine weather it may be placed outside the door, so that it may be rendered dry and free from smell. A little straw should always be placed in the stall for the horse to stale upon, and this may be changed once a day. By thus drying the litter during the day, it will serve again as well as fresh straw for the bottom of the bed, and will be perfectly free from smell. A great saving may be made in litter by turning it out and drying it in this manner.

BELLING, or BELLOWING. The noise which deer make during the rutting season.

BELLY-BAND. See **HARNESSES**.

BEND, TO, in archery signifies the putting on of the string so that it may be ready for immediate use.

BETTING is the act of laying a wager or making a deposit of money, by two persons of contrary opinions, for one to become the winner upon the decision of some popular or public event; and that so

fashionable a mode of terminating disputes may meet with but little difficulty or obstruction, bets are made with as much deliberation, and discharged by the sporting world with as much integrity, as the most important transactions of the commercial part of society in the first city in the universe. Betting indeed, in this country, has been reduced to a system, of which there are now many professors in existence. Where two opponents deposit each an equal sum (whether fifty, or five thousand pounds) upon any event whatever, it is then termed *an even bet*. An offer of *six to four*, implies the odds in direct ratio of six pounds to four, or twelve to eight, or in that proportion to any amount. Betting *two to one* is laying ten pounds to five, twenty to ten, and so on; one depositing exactly double the amount of his adversary's stake; three, four, and five to one, being regular in the same way. The latter are all termed *laying the odds*, which vary according to the predominant opinions of the best judges upon the probable termination of the event; one rule being invariable, the person betting *the odds* (or, in plainer language, the *larger* sum against the *smaller*) has always the privilege of taking his choice in preference to his adversary, against which no appeal can ever be made with a decision in its favour. Any person proposing *a bet* to another during the running of a horse, the fighting of a cock, or any other transaction, the party applied to saying "*done*," and the proposer replying "*done*" also, it then becomes a *confirmed bet*, and cannot, in sporting etiquette and honour, be *off*, or revoked, but by mutual consent. No bet *above ten pounds* can be sued for and recovered in our courts of law: the payment of all losings above that sum must depend entirely upon the *sporting integrity* of the parties concerned.

A bet made after the heat is over, if the horse betted on does not start again, is no bet.

A confirmed bet cannot be off without mutual consent.

Either party may demand stakes to be made; and, upon refusal, may declare the bet void.

A bet made upon a race, if the party be absent on the day of running, the public declaration of the bet may be made on the course, and a demand whether any person will make stakes for the absent party; if no person consent to do so, the bet may be declared void.

Bets agreed to be settled in town, or

any particular place, cannot be declared off on the course.

If odds are bet without mentioning the horse before the race is over, it must be determined as the odds were at the time of making it.

Bets made in running are not determined till the plate is won, if that heat be not specified at the time of betting.

Bets made between particular horses are void if neither of them be the winner, unless specified to the contrary.

At Newmarket, if a match be made for any particular day in any meeting, and the parties afterwards change the day, all bets must stand; but if altered to a different meeting, bets made before the alteration are void.

Bets determined, though the horse does not start, when the words "absolutely," "run or pay," or "play or pay," are made use of in betting.

All double bets are considered as *play or pay*.

Since Epsom Races, 1822, all bets are made in pounds, and not in guineas, as formerly.

Bets made on horses winning any number of plates that year, remain in force till the first day of May.

Money given to have a bet laid, not returned if not run; the same rule of course in regard to cock fighting, &c.

All bets are void on the decease of either party, before determined.

BEVY of **ROE-DEER**. A herd or company of those animals.

BEVY of **QUAILS** is a term used for a flock or brood of those birds.

BEWITS. A piece of leather to which a hawk's bells are fastened and buttoned to her legs.

BILLETING. The dung of a fox.

BINDING. A term used in tiring, or when a hawk seizes her prey.

BIRD-LIME is a well-known viscid substance, prepared in different ways, from a variety of materials, chiefly vegetable, and is used for catching birds, mice, or any other small animals.

In England, bird-lime is generally made from holly bark, though we possess a number of plants from which it may also be obtained, such as mistletoe, the root of the hyacinth, of the asphodels, the narcissus, and the black bryony, and the young shoot of the elder tree: it may likewise be made from animal substances. M. Barrera, a physician of Perpignan, having discovered the means of preparing it from the bolls of a sort of caterpillar, by putre-

fying them in the earth, steeping them in water, and then pounding and mixing them with olive oil.

The bird-lime brought from Spain has an unpleasant smell; that brought from Damascus will stand neither frost nor wet; that of the Italians is better and is made of the berries of the mistletoe, though none of them is equal to that manufactured in England, and which is made as follows:—take a quantity of holly-bark, and, having cleaned it from a thin brown scurf which is frequently found on the outside, boil it in a kettle of water for ten or twelve hours till the green coat is separated from the other: it is then covered up for a fortnight in a moist place, next pounded into a rough paste so that no fibres of the wood be left, after which it is washed in a running stream till it be perfectly free from all impurities; it is now put up to ferment for four or five days, skimming it as often as anything rises, and then laid up for use: a third part of sweet oil or any thin grease must be mixed with it when used.

As bird-lime is apt to be congealed and rendered useless in frosty weather, a portion of petroleum ought to be incorporated with it during the cold seasons; as likewise it loses its force by being exposed to the wet; a particular sort called water bird-lime should be used in marshy places; it is prepared as follows:—Take a pound of strong good bird-lime, wash it thoroughly in spring water till the hardness be entirely removed, beat it well, to separate the water from it, and then dry it well and put it into an earthen pot, add to it as much capon's grease as will make it run; then add one spoonful of strong vinegar, one spoonful of oil and a small quantity of Venice turpentine. Let the whole boil for some minutes over a moderate fire, stirring it all the time, then take it off, and when there is occasion to use it, warm it and cover the sticks well with it.

The method of preparing twigs with the common bird-lime, is to make it hot, and dip the ends of a bundle of rods into it, then to turn them about and play them together till a sufficient quantity is extended over them all: this, however, though the general custom, makes but clumsy work; the following being a much neater mode of applying it; first rub both your hands over with oil to prevent the bird-lime from sticking to them; next take a piece about the size of a nut between the thumb and two fingers of the left hand, whilst in the right you hold the twig; begin by twisting it in the bird-lime till you

have covered it from within a hand's breadth of the thicker end up to the point: when you think you have limed it sufficiently well, roll the rod between your hands so as to make them look more even and neat.

The best twigs are those cut from the the willow tree, as they have a smoother bark, and are freer from knots than any other kind; the thicker ends ought to be cut to a point and hardened in the fire, in order that they may more readily be stuck into the ground.

Strings or cords may also be limed in this manner, or by dipping them into the bird-lime while very hot, as may also straws: when thus prepared, they should be preserved in a leather bag till wanted.

BISHOPPING, an operation performed on the mouths of horses, &c. by dealers, with a view of passing them off for young animals when the natural marks are obliterated.

The front teeth, or incisores, of both jaws, in a young horse, meet exactly in a line, and perpendicularly to each other.—As the horse grows older, these teeth take a more horizontal direction, nearly in a line with the jaws, the upper teeth projecting very considerably over the lower teeth; at the same time the upper corner tooth forms a curve over the lower corner tooth. Furrows appear on their front surfaces, and their colour becomes yellow and opaque. Other characteristics of age may be seen externally; for instance, the eyes sink in their orbits, the eye-lids become lean and wrinkled, and the cavity above the eye appears more hollow (this cavity, however, is sometimes deep in a young horse). Grey hairs shoot out upon the forehead and the lower part of the mouth, the middle of the nose becomes indented by the long continued pressure of the nose-band of the head-collar, and the lips exhibit a lean and shrivelled appearance, the lower lip hanging considerably below the upper lip. The ears also drop more or less in a lateral direction.—These external marks of old age, together with those of the teeth, the dealer in horses exerts his ingenuity to counteract.

He, therefore, commences his operations by making an opening between the skin and cellular membrane, at a small distance above the eye, into which he introduces a quill, and by blowing into it, fills up the cavity and gives it a plump appearance. He proceeds next to furnish the corner teeth with the same marks which they possessed at seven years old.

For this purpose, he forms an artificial cavity in the head of the tooth with an engraving tool, and gives it a black colour by burning it with a hot iron. This process, in the stable vocabulary, is called bishopping. By such practices as these, an inexperienced person may be deceived; but, by attending to the following observations, the imposition may be easily detected; for, although the dealer has it in his power to make marks or cavities in the corner teeth, yet he cannot alter their horizontal direction, nor restore them to the perpendicular approximation which is the attendant of youth. Neither can he re-produce the prominence of the ridges of the roof of the mouth, nor furnish the tushes with their original concave surfaces. As it suits the purpose of the dealer to make an old horse appear younger, so does he sometimes find it convenient to make a young horse appear older. A horse is more saleable at five years old than at four, on which account the dealer attempts to produce an additional year, by drawing the corner teeth before the natural period of their dropping out. The bars of the mouth are also cut, to let the tushes protrude prematurely.—But although the corner teeth are removed, and the protrusion of the new teeth is thereby somewhat accelerated, yet it is an unerring rule, that the animal has not attained his fifth year until the corner teeth, both of the upper and lower jaw, are complete in their size and appearance, and the marks of the middle teeth begin to fill up. The tushes also should rise considerably above the jaw.

It is difficult to discover with accuracy the age of *crib-biters*, and horses whose teeth are extremely hard: the former lose the marks of their teeth before their usual period, the latter retain them long after the age of seven years. In examining a horse's mouth, it is necessary to look at both sides of it, as a considerable difference in the appearance frequently occurs from the mastication of the food being performed on one side of the mouth only, in which case the teeth on that side of the jaw which has most friction, will be most forward in their alteration.

BITCH. The female of the dog is so called: also the female fox is sometimes called a bitch-fox: vixen, is perhaps a more common term.

BITES frequently happen to dogs and sometimes to horses, by venomous insects and reptiles, some of which are not well known. The means of relief must, in

some degree, be regulated by appearances; and whenever inflammation is observed, bleeding cannot be otherwise than serviceable. Generally speaking, sweet oil (vegetable oil) will be found highly serviceable in cases of this kind, as an external application.—*See Adder.*

BITTERN, a bird of the crane or heron tribe, is rather smaller than the latter, being in length about two feet six inches; the bill is four inches long, of a greenish brown colour; the head feathers are long, and those of the neck loose and waving; the crown of the head black, the feathers on the hind part forming a sort of pendent crescent; the lower mandible on each side, dusky; the plumage is beautifully variegated; the ground a ferruginous yellow colour, palest beneath, marked with many bars, streaks, and numerous zig-zag lines of black; the feathers of the breast very long and loose, the legs are of a pale green; claws, long and slender, and the inner edge of the middle claw serrated, for the purpose of holding their prey more securely. The female is less than the male, darker coloured, and the feathers on the head and neck are shorter and less flowing. The bittern has somewhat the appearance of the heron, and, from the marshes being its favourite resort, it might reasonably enough be supposed that it would resemble the heron also in flavour; but this is not the case; on the contrary, while the fishy taste renders the heron altogether unpalatable and disgusting, the bittern is plump, and its flesh is somewhat similar, but superior in flavour, to that of the hare. In short, the heron is meagre and cadaverous, subsisting chiefly on fish; but the bittern feeds upon vegetables when more nourishing diet is unattainable. It leads a very solitary life, amidst the sedges of extensive marshes and fens, concealed beneath the flags and reeds, and continuing whole days about the spot, seeming to look for safety in retirement and inaction. Its principal food, during summer, consists of fish, frogs, and insects; but in the autumn it repairs to the woods in pursuit of mice, which it seizes dexterously, and swallows whole.

A female bittern that was killed during a severe frost, had in her stomach several water lizards, and the remains of frogs, which were supposed to be taken out of the mud under the shallow water in the swamp where the bird was shot. Latham mentions having seen two middle-sized trouts, perfectly whole, taken from the stomach of a bittern.

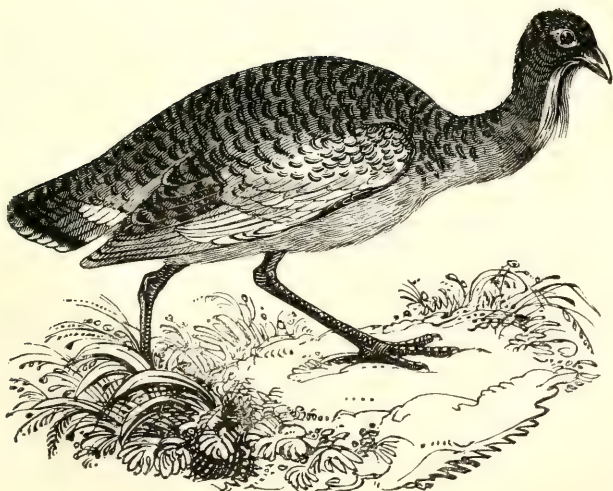
This bird is easily shot, as it flies heavily; and, though generally very timid, will, nevertheless, when wounded, make a desperate resistance. Mr. Markwick once shot a bittern, in frosty weather, that fell upon the ice, just strong enough to support the dogs that eagerly attacked it; but being only slightly wounded, it defended itself so fiercely with its bill and claws that the dogs were unable to subdue it, and it was ultimately killed by another shot.—When wounded, it has been known to strike its bill through the boot of the sportsman, and even to hurt his leg. The bittern breeds in the fens, making its nest in April, which is principally composed of rushes. The female lays from four to six eggs, of a pale greenish ash colour; the young are produced in twenty-five days, and have an ugly appearance, arising from the extreme height of the neck and legs; they continue in the nest about twenty days, during which time the old ones feed them with uncommon assiduity. Hawks, which plunder the nests of most water-fowls, will seldom venture to attack that of the bittern. The most remarkable part of the history of this bird, however, is that hollow booming noise which distinguishes it from every other part of the feathered creation; and on this account it has been regarded with a sort of superstitious detestation by the vulgar. Of all sounds, perhaps, there is not one more dismally hollow than the booming of the bittern.

It is impossible for words to give those who have not heard this call an adequate idea of its solemnity: it resembles, in some degree, the interrupted bellowing of a bull, but hollower, and, perhaps, louder, and may be heard at the distance of a mile, as if issuing from some formidable being that resided at the bottom of the water. These bellowings, or boomings, are produced by the males, and are chiefly heard morning and evening, during the months of February and March, which is unquestionably the season of courtship. Many of the common people are of opinion, that to produce this booming, the bittern thrusts his bill into a reed, which serves as a pipe for swelling the note above its natural pitch, while others imagine that the bird puts its head under water, and, by blowing violently, produces its boomings. These boomings are given six or eight times in succession, then discontinued for a short space, when they again follow in similar succession.—The above notice of the manner in which

BIRDS. *Plate I.*



BITTERN, *p.* 58.



BUSTARD, *p.* 99.

this bird produces its hollow boomings, is in all probability quite erroneous, as its anatomy seems to testify: the windpipe differs from all other animals, and is apparently calculated to produce the sound for which the bittern is so remarkable; the lower part of it, dividing into the lungs, is supplied with a thin loose membrane, that can be filled with a large body of air, and exploded at pleasure: thus these boomings are produced, which, though so awful to the human ear, are the calls of courtship, or the expressions of connubial felicity. Although the bittern is in general a sluggish heavy flying bird, yet in autumn this character is greatly changed, as it is then seen rising in a spiral ascent, till it is quite lost from the view, uttering, at the same time, a singular noise very different from its former boomings. In some places it is distinguished by the name of the bitter bump, in others, by that of the mire drum.

BITS are of two kinds, the one operating on the horse's lip, by compressing it against that part of the horse's jaw, called the bars, which are the gums between the tush and grinders; these go under the denomination of snaffles and bridoons.

The other, compressing the bars and beard by the assistance of the curb and power of a lever, are commonly called bits; but, as the ingenuity of man has, from time to time, varied the construction, fashion, and sometimes properties, very injudiciously, they have received names and appellations which have been applied sometimes to one bit, and then to another, that a bit-maker now cannot be certain of what bit you mean, except enquired for by its distinguishing name, viz. the Cannon bit, the Pelham bit, the Pembroke bit, the Weymouth bit, the Hard and Sharp, the Portsmouth, the Chifney, &c. &c. Leaving, therefore, any enquiries about names, I shall proceed to notice those only which I conceive useful and consistent, and omit all the petty whims and inventions, which are innumerable, and originated some from the bit-makers to promote trade, (since many will have whatever is new) and others from conceited horsemen, who require a bit to make up for the deficiency of their hands.

Though I admit but of two kinds of bits, yet their construction may give mildness or severity in their operation. I shall therefore begin with the mildest bit, which is sometimes called a colt's bit, or mouth-ing bit: the part that compresses the lip against the bars is made large and smooth,

for the larger the mouth-piece of the bit the milder it operates, as you may judge by only lifting a heavy weight, first with a thin ring and then with a thick one. This bit is rendered still milder by the centre of the mouth-piece being united by a ring, which renders the pressure less severe. There is usually to a colt's bit, a flat triangular piece of iron suspended to the ring, and three or four drops suspending from that; these are intended to stimulate the tongue to move, which promotes slaver; by which means, the mouth is kept cool and refreshed; for when the mouth is dry and hot, it becomes numbed and insensible. The cheeks to this bit, and all snaffles, should be six inches long, and the eye to fix the head-stall and reins sufficiently large that stout reins may freely traverse.

I shall next notice, the common plain snaffle; the mouth-piece of which is generally about the thickness of one's finger; they are so well known that they need no description. If you take the mouth-piece in your hand, and pull by the reins with the other, you will comprehend immediately their operation; and, if you try the colt's bit in like manner, you will perceive how mild that is rendered by the ring uniting the mouth-piece. This snaffle may be used after the colt's bit, and is proper to ride with by those who prefer snaffles; some variation in the powers of this bit will be occasioned by the length and thinness of the mouth-piece, which renders it sharper—thick and short will be mild. To render the snaffle more severe, a twisted one will be found to answer; the deeper they are indented, consequently the more acute will be the operation. These, therefore, are proper for horses that have hard callous lips; some are more callous and insensible by nature than others, but many are rendered so by heavy dead hands.

Horses that have their shoulders well back, their crest rising, and neck arched, so that the nose, when they are united, does not exceed forty-five degrees from a perpendicular to their forehead, will ever ride pleasant and manageable even in hunting with the snaffle, and it is the preferable bridle to ride such horses with.

The bridoon is a snaffle without the cheek; this is only used with another bit, and the cheeks would interfere and be more incumbrance than use.

The mouth-piece of the snaffle must be placed in the mouth, not to gag or wrinkle the corners of the mouth, and it is of no

consequence how low, so that the horse cannot get it over his tush, for the operation of the reins brings the snaffle to the place it is to act.

I now come to notice, what goes under the general appellation of the bit. This, also, is universally known to those conversant with horses, but not so universally considered. Its parts are the mouth-piece-curb, curb-hook, cheeks, and branches. The mouth-piece is that part received within the mouth, the length of which, should be agreeable to the size of the horse, usually about five inches, and round; the ends of which should rest on the bars, and the middle form a cavity for the tongue to lie easy and undisturbed.

The cheeks are the upper part of the lever, above the mouth-piece, on each side the jaw; the branches are the lower part, and are straight or crooked agreeable to fancy: the power of the bit chiefly depends on the length of these, and I have seen some only three inches in length, others twelve, both of which are inconsistent extremes. Each end of the mouth-piece is fixed into the cheek; which should be at the distance of two inches and a half from the top, and soldered or rivetted to be as firm as one piece. The curb is a chain, so constructed as to lie smooth and flat under the jaw: one end of the curb is clenched fast to the upper part of the off cheek of the bit, and a hook is clinched to the near cheek, to link the curb-chain to. Rings at the extreme ends of the branch, for the reins to be sewed to, are preferable to loops.

The power of the bit increases in the proportion as the length of branch exceeds the distance the curb is fixed from the mouth-piece; so, that if the curb is fixed two inches and a half above the mouth-piece, and the reins operating from the lower part of the branch five inches below the mouth-piece, for every ounce you pull on the rein, you press two with the curb on the jaw, and three with the mouth-piece, on the bars.

The length of branch may be varied according to the powers you want in the bit. Gentlemen, who have heavy hands, and light-mouthed horses, must have their branches shorter by an inch; and those who cannot govern their horses, but by the extreme powers of the bit, must lengthen the branch an inch.

The cheeks should have round loops for the head stall, rather than square ones, because the leather sits smoother and

pleasanter, as the bit operates. All corners or edges that can possibly rub the horse's cheek, or chafe the hair off, should be avoided. The cavity in the mouth-piece for the tongue, I by no means would recommend to be a very high portmouth. Those high portmouths were invented to force the jaws open, and render the horse very uncomfortable, but that is no consideration to the man that cannot hold his horse by other means.

The form of the branch may be after what fashion you please, so that you retain the power you require; varieties of curves and figures have been invented, some only for fashion, others to prevent the horse lodging the branch on his gatherers. This is what many horses will do, without having any mischievous intent. But as the bit does not properly operate, it should be prevented; which is easily done by a small chin-strap, if properly placed and buckled; but many are so constructed as to be of no use. Should a person be unprovided with a chin-strap, and the horse addicted to get the branch on his teeth, you can dislodge it by slacking the hand, and shaking the reins; the harder you pull, the firmer it holds.

With the bit, a bridoon is usually mounted; this leads me to a few remarks on mounting a bridle.

Here I shall avoid interference with fashion, and only note convenience. There are two methods of mounting a bit and bridoon bridle: the first, and the most usual, is adapted for riding the extended paces, and hunting—this has the longer and stouter rein fixed to the bridoon, and the shorter one to the bit.

The other method is calculated to ride in the united paces, consequently is used in the manege, the army, and for ladies' bridles, &c. It is usual to fix the bridoon to a separate head-stall from the bit; this has its inconvenience, for we use but one rein of the bridoon to support the position, and if the horse is stiff, or reluctantly bends, the bridoon, having no cheeks, will draw through the mouth. But the more old-fashioned way was to fix the bridoon to the same head-stall, having it sufficiently wide to divide at the ends, one to receive the bit, and the other the bridoon, and by this method the bridoon, cannot be drawn through. If the former method is adopted, you must have a nose-band, with loops in the head-stall of the bridoon for it to pass through, and that may prevent it. The shorter and lighter rein is to be fixed

to the bridoon, the stouter and longer rein to the bit. This rein is usually joined in the middle, by putting end to end, with a piece of leather between to thicken the substance, that a slider on the rein may not pass over. This method is readily to ascertain the middle, to adjust the reins even.

But there is an oversight committed in this, for the near or left rein should be at least half an inch longer than the other, by reason it has to pass under the little finger, and on the outside of the left rein over the forefinger, which will make a difference from half to three quarters of an inch.

To guard against what is termed the horse running through his bridle, that is, the curb being too slack, so that the branch loses all its power before the curb takes any effect, they run into the opposite extreme, when the branch loses great part of its power, and the horse rendered uncomfortable by the gagging of the bit. Uniformity is much regarded in the army, since the whole regiment has an uniform bit of the same powers and dimensions in every part, but the horses may vary widely, some carrying their heads high, others low, some poking their nose out, and others bridled to the chest—these circumstances require a trifling difference in the adjustment of the curb. It therefore requires some knowledge of the horse, to know precisely how to adjust his bridle.

If we examine in what situation the bit operates with the greatest power, it will be found, when the direction of the reins forms a right angle with the branch of the bit; and the more acute or obtuse angle it makes, the more power we lose.

In adjusting the bridle on the horse, the head-stall must be of that length that admits the mouth-piece of the bit to rest on the bars, a little above the tush; the bridoon a little shorter, but not so high as to wrinkle the corner of the mouth, the throat-lash buckled rather loose, to admit the horse when going to bridle his head. The mane is usually cut close where the head stall comes, and the finger should clear any part of the mane, or fore-top, that may interfere with it. The fore-top when combed smooth, may be put over or under the front; the curb is the last thing adjusted, and though a trifling variation may be proper, according to the manner the horse carries his head, I shall set down that criterion which suits the generality of horses.

The curb-chain, observe, is to pass under

the bridoon; therefore, put your right hand under the bridoon reins, to take hold of the curb-chain; and, with the left, put two fingers within the cheek of the bit, and with your thumb take hold of the curb hook. The end links of the curb-chain being in your right hand, turn the chain to the right, or as you would turn a screw, till every link lies smooth and flat, as though it was a strap; and then, without losing a half-turn, put that link on the hook, as appears to be most appropriate, i. e. neither tight nor slack, and examine how the branch operates. If the branch has liberty to move 45 degrees, and no more, it is the criterion I judge most proper; but a few degrees, more or less, is not to be regarded. Nevertheless, if one link of the chain confines it to 35 degrees, and putting it one link looser gives it liberty to 55 degrees, the manner your horse carries his head must determine which of the links is most proper. If the horse naturally carries his nose high, let the branch have 55 degrees; if he brings his nose in, 35 will be best.

If there is a chain-strap, the strap must be placed so high on the branch, that when passed through the ring in the curb-chain, it must be buckled to that tightness that precludes the possibility of the horse lodging the branch on his teeth. Unnecessary tightness should be avoided, as it renders the bit less comfortable to the horse.

Though I object to the curb being too tight, I must caution you against having it too slack; for though the horse could not run through his bridle if the branch went 75 degrees back, if the horse carried his nose high, yet if he bridled his head in, your reins would form such an obtuse angle with the branch, that you would lose the power of the branch: therefore, adhering as near as you can to the medium of 45 degrees will be found best.

BLACK ACT. This was enacted and so called, from the circumstance of the most unprecedented depredations committed in Essex, by persons in disguise, with their faces blacked and disfigured. It runs thus:—By this statute it is enacted, that persons hunting armed and disguised, and killing or stealing deer, or robbing warrens, or stealing fish out of any river, &c. or any person unlawfully hunting in his majesty's forests, or breaking down the head of any fish-pond, or killing of cattle, or cutting down trees, or setting fire to houses, barn, or wood, or shooting at any person, or sending letters,

either anonymous, or signed with a fictitious name, demanding money, &c. or rescuing such offenders, are guilty of felony, without benefit of clergy.—This is commonly called the Waltham Black Act, and was made perpetual by 31 George II. c. 42.

BLACK-AND-ALL-BLACK, also called **OTHELLO**, was bred by Lord Portmore in 1743; he was got by Crab out of Miss Slamerkin, by young True Blue; grandam by Lord Oxford's dun Arabian, out of a D'Arcy black-legged royal mare. His performances denote him to have been one of the best horses of his time: in 1748, he won 50 guineas at Lewes, and £50 at Stockbridge; in 1749, the king's plates at Salisbury, Canterbury, Lewes, and Newmarket; in 1750, at the Curragh of Kildare, he won the 100 guineas given by the Sporting Society, and 50 guineas and the king's plate at Maryborough; in 1751, he beat Lord March's Bajazet, on the Curragh, a match, four miles, 1000 guineas; in 1752, he won the sportsmen's subscription purse of 50 guineas, and the king's plate, at the Curragh, beating Lord Antrim's Gustavus. Othello returned to England, and covered in Cambridgeshire at five guineas.

BLACK COCK,
BLACK GAME,
BLACK GROUSE. } See GROUSE.

BLACK-LEG. This well-understood expression was long since given by the superior classes of the sporting world, to a fraternity of unprincipled sharpers, who are, perhaps, without exception, the most designing and abandoned set of thieves and harpies that ever disgraced civilized society. They are a community existing by, and subsisting upon, the most villainous plans of deceptive depredation: their various modes of attacking and preying upon the credulity of the inexperienced and unsuspecting part of the public, are beyond conception or belief: their number is incredible, and their stratagems exceed description. Destitute not only of character, but of every honourable and praiseworthy feeling, their minds are destined solely for the purposes of determined devastation upon the property of those unthinkingly seduced or betrayed into their company; upon whose credulity and indiscretion they are supported in a continued scene of the most luxurious and fashionable dissipation. As members have no great power of exerting themselves with much success individually, the *firm* (if a most infamous combination can be so

termed) are adequate to almost every desperate undertaking, from *pricking in the belt, hustling in the hat, or slipping a card*, to determined highway robbery. They are sole proprietors of the different gaming-tables, public and private, as well in the metropolis, as the hazard, roulette, &c. at all the races of eminence in the kingdom. They are invariably present at every fashionable receptacle for sport: the tennis-court, the billiard-room, the cock-pit, have all to boast a number of these miscreants in quest of plunder; and even the commonest coffee-house is a spot where *modest merit*, in the form of a lounging emissary, frequently obtrudes, in the anxious hope of picking up some opulent juvenile, that he may afterwards enjoy the pleasure of introducing him, in the most liberal and friendly way, to another member of the fraternity, as a very proper object, or *pigeon*, well worth plucking for the benefit of the family.

BLADDER, INFLAMMATION OF THE. This is a disease which does not often occur to horses, and, when it does, most commonly depends upon the too free use of strong diuretics. During an attack of this disease, the horse is almost constantly endeavouring to stale, only voiding a few drops at a time. The frequent staling is caused, not by the bladder being full of urine, but by the extreme irritability of the bladder, in consequence of its inflamed state. Bleeding is the first remedy to be employed; and if the pulse is very quick, the inner surface of the eye-lid red, and the breathing disturbed, you should take away not less than five or six quarts, provided the horse does not faint before this quantity is lost. The bowels should be opened, and any hard excrement there may be in the lower gut removed by means of clysters. The horse should drink plenty of the infusion of linseed; and if the symptoms of the disease still continue, he should have an anodyne clyster, and a ball, once every six hours, composed of camphor, one drachm, opium, half-a-drachm, made into a ball with linseed meal and treacle. If the disease still continues, bleed again, for it will be the only chance of saving the animal's life that remains. Horses are often affected with irritability of the bladder, without pain; this causes them to stale much oftener than usual; but the quantity of urine voided is not so small as in the above-mentioned disease; they likewise are free from fever, and feed well. This state of the bladder is too frequently brought on by the pernicious custom of

giving diuretics on every trivial occasion: when a horse is troubled with this irritability of the bladder, give him the ball we have mentioned above, with the addition of five or six drachms of nitre; letting him drink freely of the infusion of linseed. An accumulation of urine is sometimes produced by the folly of those people who ride their horses a long way, without allowing them time to stale, the ball mentioned above is the best remedy.

BLEAK are handsome fish, but do not grow to a large size, seldom exceeding two ounces in weight, and not much valued for their flavour: they are a lively sportive fish, and easily taken with a small fly at the top of the water, and with paste or gentles at mid-water, or at the bottom. Angle for them with a light rod, single hair line, small quill float, and No. 12 or 13 hook. They will bite all day from April till October, affording the young angler sport and practice; these may be caught in all parts of the New River, from Sadler's Wells to Ware. I have found the greatest sport, in angling for bleak, to bait with one gentle on a No. 12 or 13 hook, and fish about a foot deep, using a hair line, very small quill float, and keep continually throwing in half-a-dozen gentles for ground bait, or a little chewed bread. Strike the moment you perceive a bite.

BLEEDING, is the essential remedy in all the diseases of the horse, depending on inflammation, and in these cases the earlier and more freely it is employed, the more beneficial will it be in its effects. The veins which are the best to bleed from, are the jugular or neck veins, and the instrument most generally used is a fleam; however, of late years, the lancet has been used for this purpose, and in skilful hands it is much the best instrument. Some operators tie a cord round the neck, in order to raise the vein, that they may be enabled to bleed with more certainty; this is unnecessary, and may be productive of much mischief, particularly in cases where the brain is already loaded with blood, as in mad staggers.—Always bleed by measure; indeed, it would be of great use to have a vessel marked on the inside, in the same way that the basins used by surgeons are: the quantity of blood taken away, may then be readily seen. In highly inflammatory disorders, making a large orifice, so that the blood may flow in a large stream, will be found much more efficacious, than the same quantity of blood taken away slowly, from

a small opening. The blood taken away should be always set aside for examination; and, if it has a buff-coloured jelly on its surface, it denotes an inflammatory state of the body; if it remains firm and not easily broken, the operation may be repeated, if the disease has not been subdued by the first bleeding. In some cases the blood, after coagulating, will have a great deal of this buff-coloured jelly on it, but at the same time it will be thin and watery, this shews great weakness and a tendency to dropsy, and the like diseases. Green food in a loose box, or a warm well-sheltered field, is the best remedy you can employ. The great nerve of the neck has been injured, by bleeding too low down in the neck. The proper situation for bleeding is about four inches from the part where the vein divides into two branches. Topical or local bleeding is often recommended; the only part at which it is really useful is in the foot; or, bleeding in the toe, as it is commonly called; in strains about the foot and pastern, bleeding in the toe is likely to be found much more useful than bleeding from the neck. The manner of bleeding in the toe is as follows:—Having taken off the shoe, and pared away the hard and exterior parts of the sole or bottom of the foot, make a transverse incision, about an inch and a half in length, with a drawing knife, in the sole near the toe, of a sufficient depth to open some of the blood vessels, which about that part are very numerous.

Bleeding from the temporal artery has been thought more effectual than bleeding from the neck, in staggers. Bleeding in the angular or eye vein, is sometimes practised in inflammations of the eye, but it does little if any good.

Bleeding in the plate vein, used by some farriers, in injuries of the shoulder, is in no respect preferable to bleeding in the neck, nor is there any advantage in bleeding from the thigh or kidney vein, as some do when the kidneys are supposed to be affected.

Bleeding in the roof of the mouth, considered by many as a useful remedy in certain disorders, is certainly of no use, there is no circumstance, whatever it may be, which can render this operation necessary, and such accidents have happened, as a horse bleeding to death, from the artery of the palate having been opened instead of the vein.

After bleeding, inflammation of the orifice may take place, which may extend

to the vein, and from it to the heart; it, however, most commonly spreads upwards; and generally terminates in the obliteration of the vein. This is often in consequence of pinning up the vein after bleeding, in a careless manner, or the wound may be poisoned by the fingers of the operator, that have been just before employed about the nose of a glandered horse, or the heels of one suffering with the grease, &c. It is the custom of some, to bleed their horses every spring, and may be of advantage in some particular cases, where it is indicated by their rubbing themselves, having an unusual redness of the eyes, dulness, languid appetite, and unwillingness to work. But such occasions for bleeding would not often happen, were feeding, exercise, and grooming, properly attended to. When a horse has been bruised from a fall, or otherwise, it is proper to bleed freely, particularly when he has had a blow on the eye, which sometimes happens. Copious bleeding, when a horse has been over-ridden, is of great use.

BLEMISHES, are disfigurations of the horse, without any impediment to sight or action; they are often called eye-sores.—Blemishes are of various kinds, some not easily seen, and some very conspicuous, as broken knees, splents, warts, thrushes, sandcracks, the marks where a horse has formerly been severely blistered, the marks made by firing, &c. &c. A horse may be very much blemished without being unsound.

BLINDERS. See **HARNESS**.

BLINDNESS is more frequently met with in the horse than any other animal. Not that the eyes of the horse are peculiarly liable to disease; but from the violent exertions to which he is urged, and to the improper manner in which he is fed and kept, must this be attributed.—How often do we see horses taken out of a hot dark stable, where they have been standing, perhaps, two or three days without exercise, and ridden immoderately, without considering, that from standing for such a length of time, the bowels will not only be filled with excrement, but the blood vessels with blood. It cannot then be wondered at, that an organ so delicate as the eye should suffer. Colts got by stallions that have diseased eyes, are much more liable to blindness than others.—Many horses lose their eyes from extreme exertion in drawing or racing. Prevention is the object to which we should look, for when once disease of the eye has taken

place, it is very seldom perfectly and permanently cured.

BLINKERS. See **HARNESS**.

BLISTERING. This operation is performed on horses by various substances, the principal of which is the Spanish fly. They are generally employed in blood and bone spavins, curbs, strains, &c. Blistering is very frequently much too soon resorted to as a remedy, often before the inflammation caused by the original injury has sufficiently subsided: this is "adding fuel to fire;" and from this injudicious plan of treatment, enlargements of the part are often found, which are never got rid of. Corrosive sublimate, oil of origanum, oil of turpentine, &c. are also occasionally employed as blisters.

Blisters may be used in the form of either ointment, liniment, or tincture; this last is called the liquid blister, and is preferred by some practitioners. However, the ointment is the most generally used. Before a blister is applied, the hair must be cut off from the part as closely as possible. The blistering ointment or fluid is then to be well rubbed on to the part, with the hand, for the space of ten minutes or longer; after this, if the ointment is used, some of it may be spread on the part and left there. The horse's head should always be so secured as to prevent him from biting or rubbing the part; which he will do if he can for several days after. About the third day after blistering, he may be turned into a loose box, with a cradle about his neck. In about a week the part should be dressed with some mild application, as olive oil, or tar and oil mixed together—this will keep off the flies. In blistering the legs, great care must be taken to avoid the part of the heel under the fetlock joint, and it is a good plan to rub a little hog's lard on it, in order to defend it from any of the blistering material that may run down the leg. All the litter must be removed from the stall, when the legs are blistered.

LIQUID BLISTER.

Spanish flies in powder	1 oz.
Water of pure ammonia	2 oz.
Spirits of wine	half a pint.

Shake up these ingredients frequently in the bottle for a week; then pour off the clear fluid, for use.

BLISTERING OINTMENT.

Yellow wax	1 oz.
Hog's lard	4 oz.
Oil of turpentine	1 oz.
Spanish flies finely powdered	6 drs.

Melt the wax and hog's lard over a slow

fire, then add the oil of turpentine and cantharides, constantly stirring them until the mixture stiffens in cooling.

BLISTERING LINIMENT.

Olive oil	2 oz.
Water of pure ammonia	2 drs.
Oil of turpentine	3 drs.
Spanish flies in powder	2 drs.

Mix them well together

Corrosive sublimate should never enter into the composition of blisters, as it is very apt to cause troublesome sloughing sores; neither, in our opinion, should the sulphuric acid, though it is used by many.

BLOOD is the fluid which supports animal life, and when taken from the animal beyond a certain proportion, causes instant death. It is that fluid which circulates in the cavities of the heart, arteries, and veins. In the larger animals it is of a red colour, but in some it is colourless. Whilst circulating, and immediately after being drawn from an artery or vein, it appears one uniform mass; but soon after being taken from the vessel, it loses

its uniform consistence, and resolves itself into two parts; serum and crassamentum. In inflammation the blood coagulates slowly, therefore, time is given for the red particles of the blood to sink below the rest, and this is what is called the "buffy coat," denoting inflammation. The blood taken from an artery is of a much more florid or red colour than that taken from a vein. The blood is the material used in the formation of new parts, and in the restoration of those injured by accident or disease, and from it the various secretions are formed, as bile, urine, semen, &c.

The tubes through which the blood is propelled from the heart, are called *arteries*; these *anastomose* or unite with other tubes called veins, through which the blood is sent back again to the heart.—When an artery is wounded, the blood, which is externally red, flows in successive jets or gushes; whereas, when a vein is wounded, the blood, which is dark, flows in one continued stream.

BLOOD HOUND. Nothing can be more ridiculous than the absurd notions which have been propagated respecting the dog passing under the denomination of *blood hound*; and, even those who have published their thoughts on the subject, (if we except the author of the "Shooter's Companion,") have entertained the crudest and most ill-defined ideas on the subject, as their remarks so evidently shew.

The dog passing under this name, was called in Scotland the *slenth hound*, and in England the *talbot*, and he was, in all probability, introduced into these islands by William the Conqueror. At all events, the dog under consideration was evidently the original stock whence have sprung all those ramifications, which, under the name of southern hounds, northern hounds, fox hounds, stag hounds, beagles, &c. are to be met with in various parts of Great Britain.—The old talbot or blood hound, as far as we are able to form an opinion, was about two feet four, or two feet five, inches high, of substantial, strong, compact, and muscular form; the face wide, and the head altogether large; nostrils, wide and expansive; ears, very large, long, soft, and pendulous; the countenance solemn and majestic; the tail tolerably long, with an erective curve, particularly when in pursuit; with a voice awfully loud, deep, and sonorous.

If we are to believe what has been written on this highly interesting subject, one distinguishing trait of purity in the breed consisted in the colour, which was a reddish tan, gradually darkening to the upper part, with a mixture of black upon the back, becoming some shades lighter in reaching the lower parts and extremities: some few, it is said, had a little white in the face, but this was by no means common with the majority of the breed. The writer saw several specimens about forty years ago, and from these, as well as from the observations he has been able to make upon hounds in general since

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that period, he has reason to believe, that though in the talbot or blood hound a variety of colours might be found, as in the deep-flewed southern hounds of the present day, yet that the prevailing colour was the dark or black just mentioned, with, in all probability, the tanned marks over the eyes, so often seen in the modern hounds, as well as in smooth-haired black terriers. In fact, the best idea may be formed of the talbot from the contemplation of the deep-flewed southern hound, which may perhaps be justly regarded as a smaller kind of talbot.

The great and distinguishing peculiarity of the blood hound or talbot, was his infallibility in tracing to its final resort, any animal that had strayed away, or had been stolen, and also in tracing the thief himself. We are told, that the old method of teaching or training the blood hound was, in the first place, to encourage him to follow, or rather, trace, a wounded deer, in company with an old staunch hound; and at the termination of the chase he was regaled with some of the venison, as a reward for his labour, and an excitement to future service. When perfect in these introductory lessons, the shoes of a man (possessing great speed, strength, and perseverance,) were rubbed with the blood of a deer; he then, taking a remote circuit of a mile or two, occasionally renewing the blood to the shoes, as the effluvium (scent) became less effectual or more obliterated.—These inculcations were continued, and the circuit more enlarged, lengthened, and extended, till, having afforded satisfactory proof, his last experimental lessons were to hunt the dry foot of a man upon whom he had been instructively laid; and by these means the dog was rendered capable of following that pursuit for which he was ultimately intended. This, however, was rather a round about method of teaching the dog his business. To be more explicit—if perfection be desirable in hunting, or the desideratum at which we aim, a hound intended for any particular chase, should be first stooped at, and encouraged to hunt, that same scent, and that alone; and by this means he will acquire a proficiency which is not otherwise attainable. It is more than probable, that the name of blood hound was given to the dog under consideration from the circumstance of receiving his preliminary lessons with the blood of deer, or from his ulterior employment of pursuing thieves. But, if we consider the subject philosophically, we shall easily perceive that the word *blood* has no particular application in this case, more than the hunting of any other kind of hound or dog. Blood may be justly considered as the basis or fountain of scent; as the latter is neither more nor less than minute particles of the former, which, in the process of nature, or animal economy, are expressed or driven from the body, and become colourless in the operation. Therefore, as all dogs which pursue the chase by means of smell, are guided by the scent, so all may, consequently, by the same rule, be denominated blood hounds. However, the talbot evinced a sagacity, in this respect, so superior to any other kind of dog, that accounts which partake of the marvellous have been frequently reported of him: the fact is, the talbot was gifted with superior olfactory organs, or powers of

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smell; and the ignorant, therefore, were willing to give him credit for supernatural cunning; or, in other words, worked what they could not comprehend into a sort of semi-miracle; though, in these more enlightened days, the cause is known, and therefore wonder in a great measure ceases.

The talbot, as already observed, has a very large head; perhaps, by comparison, larger than that of any other kind of dog; and as, on this account, he is more abundantly supplied with olfactory organs, he, of course, possesses a better nose, or more exquisite smell, and is thus enabled to carry on a scent where an animal with inferior powers would not be able to touch it. It is a very well known fact, that the sense of smell varies very much in dogs; or, to speak as a sportsman, some of them possess better noses than others. In dogs with broad heads, the *os æthmoides*, or sieve bone, is much larger than in narrow headed dogs; the *laminæ cribosæ*, or the sieve itself, is therefore, more capacious, and contains more openings; so that the olfactory nerves which pass through it are divided more minutely, and thus that exquisite acuteness of smell is produced, which must always be found to obtain in dogs with large broad heads; and hence we easily perceive why the talbot, in this respect, stood pre-eminently conspicuous: this excellence or superiority of the olfactory organs is further assisted by the largeness and flexibility of the lips and skin about the nose, which thus admit of much greater extension of the olfactory nerves, and render them more susceptible of external impressions. The olfactory nerves resemble a bunch of small white cords, one end of which is connected with the brain, while the other, descending the head, spreads into numerous ramifications, reaching to the edges of the lips, as well as to the extremity of the nose.

Hence the inferiority of the greyhound's sense of smell will be easily perceived: his head is narrow, while his lips are thin and compressed; and, in consequence of this inflexibility, and the contracted structure of the head, that breadth and extension of nerve are inadmissible; and, to make up, as it might seem, for this defect, nature has endowed him with a celerity which is not to be met with in any other species of the dog.

All dogs, therefore, with broad heads, must possess superior organs of smell; but, it does not appear that a narrow or sharp nose presents any obstacle, as the main bulk of the olfactory organs are situated in the head; but yet, it would appear evident, that a very long nose, like that of the greyhound, must always be detrimental, since the impression of scent, externally caught, must have further to travel to the brain. The wolf and the fox have both sharp noses, but their heads are remarkably broad and capacious: their olfactory organs are unquestionably of the first order. Experience, in fact, fully verifies these conjectures. The dogs most remarkable for exquisite sense of smell, are equally distinguished for broad heads; and the gradations are easily to be traced:—the talbot, the original of all our modern hounds, exhibits the outward characteristics of superior olfactory nerves, in a very obvious and striking manner: by

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crossing the talbot with something of the greyhound-breed, the stag hound was produced: the speed of the talbot was thus increased; but, as the head became more compressed, the sense of smell suffered accordingly. The fox hound is a still farther remove, and his olfactory organs are inferior to the stag hound; and, the reason, in fact, why well bred stag hounds distinguish the blown or hunted deer from the herd, is entirely owing to their proximity to the talbot; while the fox hound, by being further removed, is unable to distinguish the hunted or blown fox, when another happens to come in the way during the chase.

Admitting, therefore, that the talbot is superior to any dog on the score of scent, we shall find that he is equally remarkable for the depth and power of his voice; while his ears are also conspicuously large: it would seem to result, therefore, that in proportion to the size of the head, the quality of the nose may be, in a great degree, ascertained; and, it will be found also, that those dogs which are remarkable for the acuteness of their olfactory organs, have large ears and deep powerful voices. Of the truth of these observations, a very little consideration must convince every sportsman: he will easily perceive a vast variety in the hound tribe, and he will perceive also, that in proportion as these varieties are removed from the talbot, will be the goodness of the nose, the size of the head and ears, and the depth of the voice.

The Spanish pointer is remarkable for a broad capacious head, as well as for large pendent ears; and his exquisite sense of smell is too well known to need any comment in this place: and those setters distinguished for their superior noses, will be found to possess a very considerable expansion of the head, though their noses may taper more than the pointer. Thus, at first glance, a bull dog will be supposed to excel in this respect; but, on examination, it will be found, that his head is rather chubby than broad, while the skin about the mouth is comparatively inflexible and compressed, his under jaw projected, and his nostrils thrown so far back as to prevent that immediate contact with external objects, which is seen to obtain in the dogs before mentioned; yet, notwithstanding all these objections, the bull dog's sense of smell is of the superior order, which arises, no doubt, from the capaciousness of his head.

Blood hounds were formerly used in certain districts lying between England and Scotland, which were infested by robbers and murderers; a tax was laid on the inhabitants for maintaining them, and there was a law in Scotland, that, whoever denied entrance to one of these dogs, in pursuit of stolen goods, should be deemed an accessory.

Hot-trod, was the pursuit of offenders, called moss troopers, by blood hounds, or *slough dogs*, as they were named, from exploring the sloughs, mosses, and bogs, which were passable only by those acquainted with the various and intricate by-paths and turnings.—These dogs were in use so lately as the reign of James I. From a warrant then issued, it appears that *nine* of them were ordered to be provided and kept at the charge of the different inhabitants. The

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lord warden of the Marches, in old times, was to have a council, chosen of discreet borderers, who were to inquire into murder, maiming, burning of houses, corn, &c. rapine and theft, deadly feud, threatening of life in revenge, cutting down trees, destroying corn, depasturing cattle, hunting beyond the established limits, &c. A thief might be pursued into the opposite realm within six days, and the chase carried on, as the term is, in *hot-trod*, with hounds and horn, with hue and cry; in which pursuits, receivers and rescuers of the fugitive were equally punishable with the principal. The regulation of the borders, by distinct and effective laws, seems to have commenced in the reign of Edward I. about the time when he aspired to the sovereignty of Scotland. Robert de Clifford, lord and hereditary sheriff of Westmoreland, was the first lord warden of the Marches, to which situation he was appointed in the year 1296.

There is much reason to believe that the noble talbot, or old English blood hound, is nearly, if not altogether, extinct. There is something of the kind still in use amongst park-keepers, and game-keepers also; the former use them for selecting a wounded deer from the herd, and seizing it; and the latter, as a sort of companion in their nightly perambulations, and for the purpose of pursuing poachers. The writer saw one of these dogs some years ago, which had been obtained from a gamekeeper in Oxfordshire, and which was represented as a thorough-bred old English blood-hound; but this was not the case: it was a fine-looking animal, about three parts talbot or blood-hound. In all probability the true breed might soon be restored, should any sportsman think their restoration desirable.

The talbot was, perhaps, the noblest variety of the dog tribe: while he possessed that exquisite sense of smell that enabled him to pursue a thief through all possible mazes, he had also, at the same time, courage and strength sufficient to seize and hold him till other assistance came up. While the then barbarous, inveterate, and unrelenting clans of the north, under petty chiefs, were perpetually engaged in civil broils, the vanquished, who fled from the sanguinary conflict, were often hunted from cave to cave by a dog of this description, and slaughtered in cold blood. Deer-stealing, not much more than a century ago, was so common, that foresters and keepers were under the necessity of keeping up an eternal watching and nocturnal warfare; the hounds under consideration were constantly trained to the practice, and so closely adhered to the scent they were once well laid on, that, even after a long and tedious pursuit, detection was considered certain and inevitable. An offending criminal was formerly considered as not only positively taken, but half convicted, the very moment a blood-hound was laid on his track.

The Spaniards, in the West Indies and South America, are in possession of a very large and fierce animal, which they denominate a blood hound, and with which they hunt the runaway negros; yet this animal differs very much indeed from the old English blood hound. He is about the same height as the talbot, with small erect ears, (which the Spaniards generally crop) the nose more pointed, and the

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hair and skin hard: his countenance is forbidding, ill-natured, and ferocious; he is not so heavy as the English blood hound, but extremely muscular, and very active. Indeed, to form an opinion from appearances and disposition, it might seem that the blood-hound of the West Indies had been produced by crossing the boar-dog of Germany with something of the rough greyhound kind.

At no very remote period, the unfortunate negros in the Spanish settlements, in the western hemisphere, were frequently torn to pieces by these blood hounds; and regular regiments of them still exist in Cuba, and other places, under the title of chasseurs. One man has the charge of two dogs; and Don Manuel de Sejas commanded a party of these men and dogs, which were procured from Cuba for the purpose of hunting the refractory Maroons in Jamaica. A tolerable idea may be formed of the character of these dogs, from a review which took place immediately after their arrival. General Walpole, being anxious to review these chasseurs, left head quarters the morning after they were landed, accompanied by Colonel Skinner, and arrived in a post-chaise at Seven Rivers. Notice of his approach having been given, the chasseurs were taken to a distance from the house, in order to be advanced when the general arrived. The Spaniards were drawn out in a line at the end of a gentle declivity, and consisted of upwards of forty men, with their dogs in front unmuzzled, and held in cotton ropes. As it was intended to ascertain what effect would be produced on the dogs, if engaged under a fire of the Maroons, the Spaniards, upon the word being given, fired their fusils, when the dogs pressed forward with the greatest fury, amidst the shouts of their keepers, whom they dragged along with almost irresistible force. Some of these animals, held by the ropes, and maddened by the shout of attack, absolutely seized the gun-stocks in the hands of the chasseurs, and tore pieces out of them. In fact, such was their furious impetuosity, that they were with difficulty stopped before they reached General Walpole, who was under the necessity of getting into his chaise most expeditiously; while the utmost exertions scarcely prevented them from seizing on the horses.

However, these dogs are chiefly intended for hunting runaway negros; and though they advance against a body of undisciplined blacks, nothing would be more ridiculous than to suppose them capable of charging a regular regiment. In hunting the negros, each chasseur is accompanied by two dogs, and armed with a straight sword or *couteau de chasse*; and we are informed that these blood-hounds, (when properly trained,) on coming up with the object of pursuit, will not kill him, unless resistance is offered, but bark and terrify him till he stops, when they crouch near him, and, by barking, give their keepers notice, who approach accordingly, and secure their prisoner. It seems they are sometimes accompanied by smaller dogs, of exquisite olfactory powers, called finders—a very striking proof that the blood hound of the West Indies is a very different animal from the talbot, since the nose of the latter was superior to any other of the dog tribe; while it is clear the olfactory organs of

the former must have been very defective, or they would have required no assistance from a *finder*. The unfortunate Maroons were panic struck on the arrival of the Spanish chasseurs in Jamaica; and though they had successfully opposed regular troops, (chiefly by ambuscade and surprise,) they surrendered, without once attempting to try their fortunes against animals by no means equal to armed men, and which required but an ordinary share of courage successfully to oppose. The Maroons had hitherto depended on their local knowledge, and the exquisite skill with which they concealed themselves, in their encounters with the troops of the island; and by no means on pitched battles or open fighting: and, aware that no hiding-place was proof against the scent of the dogs, they lost at once that address and persevering courage which had baffled very able officers, and made havoc amongst the disciplined legions brought to combat them.

Of the old English blood hound it may be observed, that he appears to possess all the good qualities of the blood hound of the West Indies, without that unnecessary fierceness which seems to be one of the most distinguishing characteristics of the latter. With an equal share of courage, the former possesses a finer scent, as well as a mild, docile, and familiar disposition; and by no means requires that excessive correction, which, it seems, is indispensable to the due submission of the trans-Atlantic dog.

In conclusion, it may be justly observed, that almost any kind of dog may be taught to pursue a human being; and certainly the fox-hound, the harrier, or the beagle, might be induced to trace the footsteps of a man with almost as much care as they are taught to chase a fox or a hare; these dogs would carry on any particular scent, when they are perfectly convinced they are to follow no other; and the ordinary rules of training are sufficient for the purpose.

BLOOD SPAVIN. See SPAVIN.

BLOODY BUTTOCKS was a grey Arabian, with a red mark on his hip: whence, according to a memorandum found among the papers of the late Mr. Croft, he derived his name.

BLOODY HAND, in the forest laws, is when a man is discovered with blood upon his hands or clothes; which circumstance constituted one of the four cases wherein a forester might arrest an offender.—The others, Back Bear, Dog Draw, and Stable Stand.

BOAR, WILD. The wild boar is the original of all the varieties we find in the hog; but is by no means so filthy and stupid an animal as that which has been domesticated by man: he is much smaller than the tame hog and does not vary in colour, but is always of an iron-grey, inclining to black. He roots the ground in a different manner from the common hog, for as this turns up the earth in little spots

here and there, so the wild boar ploughs it up like a furrow, and does irreparable mischief in the cultivated lands of the farmer. The tusks also of this animal are larger than in the tame breed, some of them being met with almost a foot long. These, as is well known, grow both from the upper and the lower jaw, bend upwards circularly, and are exceedingly sharp at the points. They differ from the tusks of the elephant in this, that they never fall; and it is remarkable of all the hog kind, that they never shed their teeth as other animals are seen to do. The tusks of the lower jaw are always the most to be dreaded, and are found to inflict very terrible wounds.

The wild boar can properly be called neither a solitary nor a gregarious animal. The three first years the whole litter follows the sow, and the family lives in a herd together. They are then called beasts of company, and unite their common forces

against the wolf, or the more formidable beasts of prey. Upon this their principle safety, while young, depends; for when attacked, they give each other mutual assistance, calling to each other with a very loud and fierce note; the strongest face the danger; they form a circle, and the weakest fall into the centre. In this position, few ravenous beasts dare venture to attack them, but pursue the chase where there is less resistance and danger. However, when the wild boar is come to a state of maturity, and when conscious of his own superior strength, he then walks the forest alone and fearless. At that time, he dreads no single creature, nor does he turn out of his way even for man himself. He does not seek danger, and he does not seem much to avoid it. This animal is therefore seldom attacked but at a disadvantage.

Hunting this animal was formerly a favourite amusement amongst the great in this country; and the chase of it is thus mentioned by an old writer:—A wild boar is called a pig of the sounder the first year of his age; a hog the second; a hog's steer the third; and a boar the fourth; when leaving the sounder, he is also termed a single or a sanglier. The common age of a boar is twenty-five or thirty years; they go to rut about December, and their great heat lasts about three weeks.

It is easier to take a boar in a toil in April or May than in any other season of the year, in consequence of their sleeping more soundly at that period, which is caused by their eating of strong herbs, and buds of trees, which moisten their brain and cause sleep. They feed on corn, fruits, acorns, chesnuts, beech mast, and all kinds of roots; when they are in marshy or watery places, they feed on water cresses and such things as they can find; and when they are near the sea-coast, they feed on cockles, muscles, oysters, and such like fish.

A boar most commonly lies in the strongest holds of thorns and thick bushes, and will stand the bay before he will forsake his den.

If he is hunted from a strong thick cover, he will be sure to go back the same way he came, if it be possible; and when he is roused, he never stops until he comes to the place where he thinks himself most secure.

If it so happen that there is a sounder of them together, then, if any break sounder, the rest will run that way; and

if he is hunted in a hold or forest where he was bred, it will be difficult to force him to quit it: sometimes he will take head, and seem to go drawing to the outsides of the covert; but it is only to hearken to the noise of the dogs; for he will return again, from whence he will be hardly compelled before night: but having broken out, and taken head endways, he will not be put out of his way by man nor beast, by voice, blowing, or any thing else.

A boar will not cry when he is killed, especially a great boar; but the sows and young ones will. In fleeing before the dogs, he neither doubleth, nor crosseth, nor useth such subtleties as other beasts of chase do, as being heavy and slow, so that the dogs are still in with him.

HOW TO HUNT A BOAR AT FORCE WITH DOGS. The season for hunting the wild boar begins about the middle of September, and ends in December, at which time they go a brimming.

It is not convenient to hunt a young boar of three years old at force; for he will stand up as long, if not longer, than any light deer that beareth but three in the top; but in the fourth year, you may hunt him at force as you do a hart at ten, and he will stand up as long. Therefore, if a huntsman goes too near a boar of four years old, he ought to mark whether he went timely to his den or couch, or not; for commonly those boars which tarry till daylight, go into their dens, following their paths or ways a long time, especially where they find fern or beech mast, whereon they feed; they are very hardy; and in the raising of this animal, one need not be afraid to come near him; for he values you not, but will lie still, and will not be reared by you alone.

But if you find a boar which soileth oftentimes, and which rooteth sometimes here and there, not staying long in a place, it is a sign that he has been scared, and withdraweth himself to some resting place, and such boars most commonly come to their dens or holds two or three hours before day, and the huntsman must take care how he comes near such a boar; for if he once finds him in the wind, or have the wind of his dogs, he will soon be gone.

It is also to be observed, that if a boar intends to tarry in his couch, he makes some doublings or crossings at the entrance of it, upon some highway or beaten path, and then lies down to rest; by which means a huntsman, being early





in the woods, may judge of his subtlety, and accordingly prepare to hunt him with dogs that are either hot spirited or temperate.

If it be a great boar, and one that hath lain long at rest, he must be hunted with many dogs, and such as will stick close to him; and the huntsman or spearman, on horseback, should ever be amongst them, charging the boar, and as much as possible to discourage him: for if you hunt such a boar with five or six couple of dogs, he will not regard them, and, when they have chased him a little, he will take courage and keep them at bay, still running upon any thing that he sees before him; but, if he perceives himself charged and hard laid into with dogs, he will be discouraged, and turn head and fly to some other place of refuge.

You ought also to set relays, which should be the best old staunch hounds of your kennel; for, if they should be young hounds, and such as are swift and rush to seize him before the others come up, they will be killed or spoiled by him. But if he be a boar that is accustomed to fly endways before the dogs, and to take the champagne country, then you may cast off four or five couple at first, and set all the rest at relays about the entrance of the fields where you think he is likely to flee; for such a boar will seldom keep the hounds at bay, unless he be forced; and when he does stand at bay, then the huntsman ought to ride in unto him as secretly and with as little noise as possible; and when he is near him, let him cast round about the place where he stands, and run upon him all at once, and it will be odds but that they will give him his death's wound with their spears or swords, provided they do not strike too low; for then he will defend the strokes with his snout; but be sure you keep not too long in a place, but use a quick motion.

You may also take notice, that if there be collars of bells about the dogs' necks, a boar will not so soon strike at them; but flee endways before them, and seldom stand at bay.

It is expedient to raise a boar out of the wood early in the morning, before he hath made water, for the burning of his bladder quickly makes him weary: when a boar is first raised, he is used to snuff in the wind, to smell what is with or against him.

Now, if you strike at him with sword or boar-spear, do not, as has been said, strike low; for then you will hit him on

the snout, which he values not, since he watches to take blows on his tushes or thereabouts; but, lifting up your hand, strike right down, and have a special care of your horse; for, if you strike and hurt him, so will he you if he can; therefore, in thus assaulting boars, the hunters must be very careful, for he will rush upon them with great fierceness.

However, he very rarely strikes a man till he is first wounded himself; but afterwards it behoves the hunter to be very wary, for he will run very fiercely, without fear, upon his pursuers; and if he receive not his mortal wound, he overthrows his adversary, unless he falls flat on the ground, when he needs not fear much harm; for his teeth cannot cut upwards but downwards; but with the female it is otherwise, for she will bite or tear any ways.

But further, as the hunting spears should be very broad and sharp, branching forth into certain forks, that the boar may not break through them upon the huntsman, so the best places to wound him are the middle of his forehead, between the eyelids, or else upon the shoulder, either of which is mortal.

Again, in case the boar makes head against the hunter, he must not fly for it, but meet him with his spear, holding one hand on the middle of it, the other at the end, standing one foot before the other, and having a watchful eye upon the beast, which way soever he winds or turns; for such is his nature, that sometimes he snatches the spear out of the hunter's hands, or recoils the force back again upon him: in these cases there is no remedy but for his companion to come up, and charge the boar with his spear, and then make a shew to wound him with his dart, but not casting it for fear of hurting the hunter.

This will make the boar turn upon the second person, to whose assistance the first must again come in, with which both will have work enough: nay, when the boar feels himself so wounded that he cannot live, were it not for the forks of the boar-spear, he would press upon the vanquisher and revenge his death.

And what place soever he bites, whether man or dog, the heat of his teeth causes an inflammation in the wound.

If therefore he does but touch the hair of the dog he burns it off; nay, huntsmen have tried the heat of his teeth by laying hairs on them as soon as he was dead, and they have shrivelled up as if touched with a hot iron.

The boar is a beast of such great force and so slow of foot, by reason of his heaviness, that he is not properly termed a beast of venery, as he chiefly trusts in his strength and his tusks for defence, and not to his feet; so that he is more properly to be hunted with stout mastiffs than with grayhounds, which cannot so well defend themselves from his fury.

Also, it spoils them from hunting other flying chases, by reason he leaves so strong a scent, so that they hunt with greater ease than at light chases, which are more painful for them to find and to hold the scent.

THE WAY TO KNOW A GREAT BOAR BY HIS FOOT, &c. To know him by his foot, the form and print of it ought to be great and large, the toes round and thick, the edge of the hoof worn and blunt, without cutting and paring the ground so much as the younger do; and the guards, which are his hinder claws or dew claws, should be great and open one from the other; the treading of his foot should be deep and large, which indicates the weightiness of his body, and his steps should be great and long.

By the length and depth of his rooting, his size may be known; because, a wild swine roots deeper than our ordinary hogs, their snouts being longer: and also by the length and largeness of his soil, when he walloweth in the mire; also, when he comes out of the soil, he will rub himself against a tree, by which his height will appear; as also when he sticks his tusks into it, by which the largeness of them will appear; they also observe the bigness of his cesses and the length of his den.

A boar is said to feed in the corn, but if in the meadows or fallow fields, they say he rooteth or wormeth, or ferneth; but when he feeds in a close, and rooteth not, they say he grasseth.

Such, if we are to believe the accounts handed down to us, was the method formerly practised of hunting the boar. This animal, though extinct in England, still continues to be hunted in France, and indeed most parts of the Continent; but, the chase of the boar, like some other departments of field sports, has partaken of the improvements of more modern times, and though the animal may still be roused by dogs, the fowling-piece has been substituted for the boar-spear. The method at present frequently adopted for the pursuit of the wild boar, particularly in France, is by sending small noisy

dogs into their woody retreats, while the hunters lie in ambush to shoot them as they pass along their different tracks; and on these occasions the hunters are frequently assisted by the neighbouring peasantry, as, from their local knowledge, they are enabled to place the hunters in the most advantageous situations. This method of pursuing the chase is distinguished by the name of *La Trac*.

Hog-hunting in India is a favourite diversion of the British officers, as well as the other Europeans residing in that part of the world. The wild swine in Hindoostan are smaller than those which are met with on the European continent. The hunters are mounted for the chase, and, with the assistance of dogs, pursue the hog (or wild boar) armed with a sort of javelin, which a little practice enables them to throw with almost unerring certainty. When a hog is roused, the hunters pursue him, and the first who comes up with the chase throws his javelin: should he miss his aim, the hog is still pursued by others, armed in the same way, until he is killed. The wild boar, (or hog, as he is called in India, and the diversion is there called hog-hunting,) on being roused, makes off as fast as possible; but he no sooner perceives himself attacked, than he turns upon his pursuers; and though the hunters themselves seldom receive much injury in the conflict, it is no uncommon occurrence for the horse to be severely wounded; sometimes he is killed. When the boar turns upon the hunter, the horse is very apt to rear, and by this means he affords the boar an opportunity of wounding him in the belly with his tusks. There are other dangers, however, to be apprehended when following this diversion, as the hunter is never secure from the sudden attack of ferocious, lurking wild beasts, with which that part of the world abounds, particularly the tiger. The flesh of the Indian wild hog is esteemed by the hunters, and is said to taste something like venison.

The Ethiopian wild boar is much allied to the common hog in appearance, but is distinguished from it by a pair of large semicircular lobes or wattles placed beneath the eyes. The snout also is much broader, and very strong and callous. It is a native of the hotter parts of Africa, and is a very fierce and dangerous animal. It resides principally in subterranean recesses, which it digs with its nose and hoofs; and, when attacked or pursued, it rushes on its adversaries with great force, striking like the common boar with

its tusks, which are capable of inflicting the most tremendous wounds.

These creatures inhabit the wildest, most uncultivated, and hottest parts of Africa, from Senegal to Congo; and they are also found in the island of Madagascar. The natives carefully avoid their retreats, since, from their savage nature, they often rush upon them unawares, and gore them with their tusks.

A boar of this species was, in 1765, sent by the governor of the Cape of Good Hope to the Prince of Orange. From confinement and attention, he became mild and gentle, except when offended, in which case, even those persons to whose care he was intrusted were afraid of him. In general, however, when the door of his cage was opened, he came out in perfect good humour, gaily frisked about in search of food, and greedily devoured whatever was given him. He was one day left alone in the court-yard for a few minutes, and, on the return of the keeper, was found busily digging into the earth, where, notwithstanding the cemented bricks of the pavement, he had made an amazingly large hole, with a view, as was afterwards discovered, of reaching a common sewer that passed at a considerable depth below. It was not without much trouble, and the assistance of several men, that his labour could be interrupted.

The motions of this animal were altogether much more agile than those of the common hog. When provoked, or rudely pushed, he always retired backward, keeping his head towards his assailant, and shaking his head or forcibly striking with it. His senses of smelling and hearing were wonderfully acute.

On the chase of the wild boar in France, Colonel Thornton makes the following observations:—

“The equipage destined for the chase of the wild boar is denominated *vautrait*. In great hunting establishments it forms a separate department, in which particular officers and attendants are employed. Large equipages for this sport are usually attended by a pack of fifteen or twenty couple of hounds. The huntsmen and whippers-in ought to be extremely expert. This chase is very fatiguing: the huntsmen are obliged to shout incessantly, to make the dogs follow, as they are frequently discouraged, especially if they are pursuing an old boar. It requires mettlesome and vigorous horses; and the riders must not be afraid of the branches in the thick recesses of the

forest, into which they are obliged to penetrate.

It is extremely difficult to procure hounds well trained for hunting the boar, and this instruction requires great patience and attention; not that a young hound will not at first pursue the animal; but his scent sometimes disgusts, and the country, covered with thickets and morasses, discourages him. A boar is not so easily hunted down as a stag; and, let the establishment be ever so excellent, the chase seldom lasts less than four or five hours. Sometimes the animal is checked by firing a gun—or he is pursued by mastiffs and greyhounds. Chases have been known to continue two whole days; and at last the hunters could not have taken the boar but by shooting him, on the third day.

When the boar finds himself driven to the last extremity, he does not run forward, but frequently turns, keeping for a considerable time near the same spot, and seeking to make the dogs start some other game. When he is done up, he foams much, advances only by leaps and bounds, throws himself into some marsh, or sets his back against a thicket, facing the dogs, and defending himself with incredible fury. It is then that the whippers-in must give effectual support to their dogs, and endeavour to dislodge the animal; but if he keeps at bay, it is proper to prevent the dogs from approaching too near. The whippers-in enter the thicket with precaution: one of them alights, approaches the boar, and plunges his hunting-knife into the small of his back. The man who inflicts the wound must be very alert, and instantly run off a contrary way; for the boar always turns towards the side on which he feels himself wounded. If, however, he should prove so furious as to endanger the sportsmen and the dogs, the best way is to kill him with a gun or pistol: this is a privilege or honour reserved for the leader of the company, and is resorted to only at the last extremity. The whippers-in then sound the death of the animal, and encourage the dogs to trample on him. Having cut off the testicles, which would cause the flesh to contract a very disagreeable smell, and the fore foot, which is given to the huntsman, who presents it to the leader of the company, the boar is carried off. Before they return, the dogs are inspected, and those that have received wounds are dressed, as the huntsman ought to be provided with needles, thread, and every thing necessary for that purpose.

Dogs do not eat the flesh of the boar with so much avidity as that of the stag; nor must it ever be presented to them raw. All that is in general given them is the shoulders and the intestines cut in pieces, and boiled in water.

In some parts, small bells are fastened to the necks of hounds that hunt the boar and the wolf. If it is not intended to hunt down the boar, but only to shoot him, an equipage becomes perfectly useless; one or two blood-hounds, and a few good hounds, are, in this case, quite sufficient. Nay, you need then only employ the mastiffs with which the gamekeepers traverse the forests where the boars couch, and drive them towards the spot where the hunters are posted.

In Germany, and occasionally in France, very fine sport is obtained by hunting of boars, and likewise of stags, with toils. An enclosure is formed with toils and pitch-forks, round the thickets into which the boars have been driven. A huntsman sets his blood-hound upon the scent, and follows him till he has reared the game. Five or six hounds are then slipped: this number is sufficient to hunt a large boar; but if there are several, the whole pack is taken.

In the first case, it is proper to accompany the hounds with a few dogs, produced by crossing the breed of the mastiff with the hound: these animals, which are extremely ardent, will closely press the boar, and drive him round the enclosure. The dogs are powerfully supported with the voice and the horn, and are followed close to prevent the boar from making head against them. After the chase has continued some time, the large mastiffs and greyhounds are then slipped, and these rush upon the boar with fury. The huntsmen advance; one pierces the animal with his hunting-knife in the small of the back; the others, armed with sticks, are ready to receive him, in case he should make towards the person who wounded him, and strike him upon the snout, keeping him off with the end of the stick, till they have despatched him. When the proposed number of boars are taken, the dogs are called off."

It would, at first view of the case, appear hardly credible that a boar should stand so long before hounds; but this animal, in a state of unlimited freedom, is, beyond all question, a very different creature from the heavy, sluggish, domesticated boar, which frequently appears scarce able to support his own unwieldy bulk.

From a private letter of the late Colonel Thornton to a friend, I copy the following observations respecting the wild boar, and also of the pursuit of it:—

"I sent you a paper which contained something about a noble wild boar, which I ordered to be hunted; and, when killed, in Chambord, to send it here at my expense; and thus to try to let such sportsmen here (London) as never saw one, be able to judge for themselves. Accordingly, it being arrived, every person that heard of it came to see it. It was hung up at a venison-dealer's in Old Bond Street. The concourse of people was so great, that the man could not get out of, or others enter, his shop. It is to-day (January 15, 1819) being cut up into forty pieces, to be disposed of to various friends; and I have given the skin, head, &c. all un mutilated, to Bullock, to show them, with the account of the different balls he received ere he would resign to hounds or men. He is by no means the largest boar I have killed; but he is a terrible-looking fellow, more dangerous than one much older, for then their tushes grow thicker, become curved, and the animal is more inactive. He wounded many of the hounds, but only killed, I believe, three. A couple of vermin terriers plagued him the most, as he could not get his tushes to bear on them. The last final shaft was a *lingo*, which, I see, broke three of his ribs, and passed through him. The number of balls he received I shall examine and relate. I understand, he stood a run of full forty miles. But I am sure I ran one at least one hundred and forty; and then he was not done up, though constantly viewed from half past eleven till past ten the next day, relays of hounds being uncoupled close at him every three or four hours. What other animal can show such game and bottom?

We dine to-day a party on his loin or saddle, which was where he received his death wound. The wound, as I have already observed, was inflicted by a *lingo*, which is a piece of iron or lead, formed something like a weaver's shuttle, of the weight of two or three balls, and made to fit the calibre of the gun. It is a sort of bolt, which, if it strike into flesh, it goes deeper: if it touches a bone, it then turns itself broadways; and thus, though a ball would only have broken one rib, it broke three, close up to the back. The number of balls that he received shall be the subject of my next letter."—This boar, it seems, was three years old, was run by

fleet fox-hounds, and during the progress of the chase crossed four rivers.

BOBBING. A method of taking eels. It is practised in a boat, with a large bunch of worms suspended by a strong cord from a pole or stout rod, in the following manner. First of all, you must procure a large quantity of worms, (marsh worms are best, though lobbs will do,) and string them on worsted or coarse thread, by passing a needle through them from head to tail, until you have as many strung as will form a bunch as large as a good-sized turnip; then fasten them on the line, so that all the ends may hang level: in the middle is placed a piece of lead, of a conical or bell form, the broad end downwards, which may be got at any of the fishing-tackle shops, made for the purpose; thus prepared, cast the baits into the water gently, let them sink to the bottom, and then keep raising them a few inches from the ground, and dropping them again, until you have a bite, which is easily perceived, as the eel tugs very strongly: be as expert as possible, at the same time steady, in raising your line, so that your fish, in dropping off, may fall into the boat. Immense numbers are taken by this method. During the hot weather, always fish or bob in shoal, or rather shallow water, and out of the stream. During the night most are taken; but they will lay hold freely in the day-time. Rivers in which the tide flows afford the best success, particularly during ebb-tide.

BOG SPAVIN. See **SPAVIN**.

BOLTING. When a fox, having taken to ground, has been dug to, and forced out, he is said to have been *bolted*. Also, a rabbit or a badger *bolt*, when they quit their earth. A race-horse *bolts* when he obstinately runs off the course.

BONE SPAVIN. See **SPAVIN**.

BONNY BLACK, the property of the Duke of Rutland, was got by Black Hearty, (a son of the Byerley Turk); dam by a Persian stallion. Bonny Black was the best of her day, as regarded speed and bottom. At three years old, she beat a six-year-old horse belonging to Mr. Frampton—10 stone each; at four years old, she won the gold cup at Hambleton, and the following year bore off the same prize; at six years old, she beat Lord Harvey's Merriman, eight years old, giving him 3 stone. She also beat Hackwood in a match, 8 stone each, after which her owner offered to run her four times over the B. C. at Newmarket, (sixteen miles,) without rubbing, for 1000 guineas, against any

horse or mare in the kingdom. This challenge not being accepted, she became a brood mare in his grace's stud. Bonny Black was foaled in 1715.

BORING. A useless and cruel operation, formerly practised for a strain of the horse's shoulder, or, as they termed it, "a wrench." It consisted in cutting a hole in the skin of the shoulder: into this they introduced the stem of a tobacco pipe, blowing up the cellular membrane in the same way a butcher does that of veal: a flat piece of red-hot iron was then thrust in for several inches, and worked about in different directions. This cruel and unnecessary operation has long been buried in deserved oblivion.

BOTTS. There is a great diversity of opinion about these insects, being said by some practitioners to produce very formidable diseases, and sometimes even to kill the horse; on the other hand, they are said to be productive of no mischief at all. That they produce no harm, seems to be shown by their being found in horses which die from accidents, or are killed, proving, at any rate, that their presence in the stomach was not the cause of death. Again, it has been thought that they might be of service in triturating the food in the stomach, as their covering is nearly horny; and Mr. Bracy Clark, who has written a very excellent paper on them, seems to think that they prevent farcy and glanders. There have been cases in which the botts have eaten holes through the stomach; in a remarkable one, when the horse was opened after death, the contents of the stomach were found in the cavity of the peritoneum, and there were also some found sticking between the coats of the stomach, proving that they had not got into the peritoneum, by the action of the gastric juice upon the stomach. The insect has two sharp hooks, by which it attaches itself to the stomach, and it prefers the cuticular part rather than the more sensible one. They cannot be removed by medicine; and when they pass out at the anus, it is because they have of their own accord left the stomach. They are deposited on the skin of the horse in an egg by a fly; the horse, by licking his skin, takes them into his stomach, where they are hatched and adhere. After having staid there some time, they pass out at the anus, and become a fly. We possess nothing capable of killing them; for after opium has been given to a horse labouring under locked jaw, in doses of one ounce every day, for a week, botts

were found in the stomach, perfectly alive; the same when tobacco has been employed, and even arsenic and corrosive sublimate.

BOW. The bow, which is justly called "by Ascham, the chief instrument of archery, was made in former times of a variety of different woods, as may be gathered from the statute on archery of the 33 Henry VIII. c. 9, in which it is enacted, that every bowyer (living without the city of London) for one bow of yew shall make four of elm, wych, hazel, ash, or other wood apt for the same." The author of the *Toxophilus*, however, speaking of the woods proper for bow making, says that "for brasell, elme, wych, and ashe, experience doth prove them to be but meane for bowes, and so to conclude, yew, of all other things, is that whereof perfect shooting would have a bowe made. This wood, as it is nowe general and common amongst Englishmen, so it hath continued from long time."

The experience of our ancestors, which led them to prefer the yew to all other woods, taught them also the superior value of foreign yew to that which grew in England; so high indeed was foreign yew esteemed, that a number of statutes were passed in the reigns of different kings, relative to the importation of bow staves; by some of which it was ordered that they should be brought from Venice; by others, that a certain number should be imported with every butt of malmsey or Tyre wine; with a variety of other regulations, which, in a practical notice like the present, it is needless to enumerate.

Before, and for sometime after, the reign of Elizabeth, bows were made of one single piece of yew till the scarcity of foreign staves induced bowyers to substitute English yew, which being in itself too brittle and full of knots to make a bow alone, they tried the experiment of joining a piece of tough wood with it: the result answered their highest expectations, and from that time *backed bows* became in general estimation; still, however, though backed bows have gained considerable reputation, Mr. Roberts, in his *English Bowman*, observes, that "we know by experience that the best modern *self yew bows* (a bow made of one piece is called a *self bow* in contra-distinction to *backed bows*) have never been exceeded in *certainty or length* of cast by the best modern *backed bows*," by which it will be seen that a backed bow does not exceed a self bow, except that it is thought by some to be

pleasanter and easier to draw, especially in the last inch, and of quicker cast.

Seeing that we have made two kinds of bows, we shall give a description of each, beginning with the self bow:—Ascham observes, that a bow is known much as good counsel is known, by the end and profit of it; yet both a bow and good counsel may be made both better and worse, by well or ill handling of them, as oftentimes happens. And as a man both must and will take counsel of a wise and honest man, though he see not the end of it, so must a shooter of necessity trust an honest and good bowyer for a good bow before he knows the goodness of it. And as a wise man will take plenty of counsel beforehand whatsoever need, so a shooter should always have three or four bows in store whatsoever happens. Therefore, I will tell you some tokens in a bow, that you shall be seldom deceived. If you come into a shop and find a bow that is small, long, heavy, and strong, lying straight, not winding nor spoiled with knot-gall, wind-shake, wem-fret, or pinch, buy that bow on my warrant. The best colour of a bow that I find, is when the back and the belly in working be much after one manner, for such, oftentimes in using, do prove like virgin wax or gold; having a fine long grain, even from the one end of the bow to the other; the short grain, although such prove good sometimes, are for the most part very brittle. Of the making of the bow I will not say much, lest I should seem to enter into another man's occupation, in which I have no skill. Yet I should wish all bowyers to season their staves well, to work them and sink them well, to give them heats convenient, and tylleringes plenty.

Every bow is made either of a bough, of a plant, or of the bole of the tree. The bough is commonly very knotty and full of pins, weak, of small pith, and will soon follow the string, and seldom wears to any fair colour; yet, for children and young beginners, it may do well enough. The plant proves often good if it be of good and clear growth, and for the pith of it, is quick enough of cast; it will ply and bend far before it breaks, as all other young things do. The bole of the tree is cleanest, without knot or pin. Of the origin of *backed bows* we have already spoken; also of the fact, that a *good backed bow* is not superior to a good *self bow*. It is said however that they are more pleasant and easy in the drawing; which, with the

circumstance of a good backed bow being more easily procured than a good self bow, has been, and doubtless will be, the cause of their preserving the reputation which they have not unjustly acquired.

In the construction of backed bows they are generally composed of two pieces, the back and the belly, though occasionally an intermediate slip of quick casting wood has been introduced between the two, and has been found to answer remarkably well: the belly inside, or round side of the bow, was for some time made of yew, till fustic was discovered to be quicker in its action; of late years a variety of different woods have been imported, which have been used with considerable success in bow making.

BOW, A BEARING. A bow that casts an arrow well.

BOW-ARM. The arm employed in holding the bow.

BOW, BACKED. A bow, the back of which is a distinct piece glued upon the belly.

BOW-HAND. The hand which holds the bow.

BOW MEETING. An assemblage of archers, most generally for the purpose of shooting for a prize: the term is also sometimes applied to those meetings which are for the purpose of exercise only.

BOW SHOT. The distance which an arrow flies from a bow.

BOW STAVE. A stave of wood, cut ready for being shaped into a bow.

BOWELS. (INFLAMMATION OF.) The bowels of all animals are very liable to disease, the most serious of which is inflammation; and this occurs more frequently in horses than in any other quadruped. Inflammation of the bowels occurs in three distinct parts: first, in the mucous coat of the intestines; in those cases in which horses die from excessive purging, the treatment is different on account of the action of the aloes, which, if used in large quantities, becomes caustic to the intestines, so as to induce gangrene. Opium will stop the purging but we rarely see a case recover, in which a sufficient quantity of opium has been given, so as to produce astringency. It is best to give chalk, with about two drachms of the tincture of opium, and apply turpentine embrocations to the abdomen, the horse, at the same time, wearing sheep skins.—Blisters are but of little use, as the disease requires immediate relief. This inflammation of the mucous coat of the bowels, is, as I have said, always brought on by

excessive purging.—2nd. Inflammation of the substance of the bowels; the pulse is in this disease hard, and from 70 to 80 in a minute, whilst its natural state is about 40; the breathing is difficult, the ears and legs are cold, the horse lies down and strikes his belly with his legs, but he does not attempt to lie on his back; the pain is not so acute as in spasm, nor does it come on so suddenly; these differences, with the hardness of the pulse, will distinguish inflammation of the substance of the bowels from spasm. In the treatment of this disease, we must have recourse to large bleedings, on which every thing depends; we should take away 18 or 20 pints of blood, and indeed, rather be guided by the pulse than the quantity of blood we have taken away; we should throw up by the rectum, gallons of warm water and soft soap; for, if these remedies be not used, the bowels will become gangrenous or nearly in a state of mortification.—3rd. Inflammation of the peritoneal coat of the bowels sometimes takes place, but it is seldom seen, except as the effect of castration.

BOWEL-GALLED. This is a laceration between the elbow of the fore leg and the ribs of the horse, occasioned by the tightness and friction of the girths. It should be frequently bathed with a solution of sugar of lead in water, in the proportion of one ounce of the sugar of lead to two quarts of water; taking care that the girths do not press again on the same place, which may be prevented by means of a crupper.

BOWYER, a maker of bows.

BRACE—a pair; a couple; a brace:—a pair is two united by nature (par); a couple, by an occasional chain (copula); and a brace, by a noose or tie.—A pair of swans; a couple of hounds; a brace of partridges. A pair is male and female; a couple, two accidental companions; a brace, tied together by the sportsman.

BRACER, an implement used in archery to protect the left arm from being injured by the string striking against it. It is generally made of stout leather, the outside of which should be well polished, and it should be fastened to the arm with a buckle and strap. The price of a bracer is five shillings. This implement, by many, is called a brace.

BRAMBLE-NET, a net, otherwise called a hallier.—See **NET**.

BRAN, is a very useful article of diet for sick horses, and as a preparative for purgative medicines. Good bran should

be sweet and perfectly free from any musty smell, which it often acquires by keeping in damp places. Pollard is a superior kind of bran, which is sometimes to be preferred, when more nutriment is wanted in the mash than you can get from common bran. Bran mashes are made by pouring boiling water on to bran, and letting it stand in the pail until it is sufficiently cool. Bran is of an opening quality, and, therefore, it is very proper for horses that have but little exercise; mixed occasionally with oats or split peas.

BREAKING DOGS. Under this head I shall first observe, that, by proper attention to breeding, the sportsman will have very little trouble in training. A well-bred dog, either setter or pointer, will generally require very little instruction, as he will, particularly if taken out young, set and back of his own accord.

I know it is a received opinion that those dogs which are very difficult to reduce to the required subordination, prove, when thoroughly subdued, superior to all others. From experience, I will venture to pronounce this a hasty opinion:—these hardy, untractable animals, are chiefly the offspring of the pointer and setter, or, at least, cross bred; and are, after all the painful flagellation, and endless trouble in training, no better than a good dog of a milder and more pliable disposition, nor yet so good, as unqualified reliance can scarcely ever be placed on them: indeed, after repeated trials of dogs of this description, I have become so disgusted with them, that I would not, on any account, take the trouble of another experiment.

In the first place, then, it is indispensably necessary that the sportsman should procure dogs whose breed is unexceptionably good, as well-bred dogs are more than half broke the moment you take them into the field. The dog is an animal possessed of an uncommon degree of sagacity;—in short, he has *reasoning powers* to a very great extent, which may be converted to the pleasure or the service of his master; yet, in this respect, dogs will be found to vary very much; and while some will appear to exhibit instinct merely, others will be found to evince a degree of acuteness very similar to reason. There is a countless variety of the dog tribe, many of the nondescript ramifications of which, with an ugly and diminutive form, seem to sink much below the general level of the canine tribe in sagacity, while the nobler kinds appear to rise in the scale of importance in proportion as they are judiciously bred,

and afterwards cherished by the fostering care of their human protector.

The most sagacious of all the varieties of this highly interesting animal is, without dispute, the Newfoundland dog. His olfactory organs are of the first order; yet, as from his heavy, long, and loose form, he is unable to support the fatigue of a day's range, he, on this account alone, is ill calculated for the shooting sportsman. Similarly important disqualifying observations would apply to most of the other varieties of the dog, till we come to the pointer and setter, which appear altogether most admirably adapted to the purpose for which they are so generally used. We may, however, remark, that the mere pointing or setting is by no means confined to these two particular kinds; on the contrary, terriers, hounds, and all dogs inclined to hunt, may be easily taught to point or set; or, in other words, to pause or stop, on their approaching game. Indeed, there are few dogs given to hunting but will point naturally, in the course of a little time, which arises no doubt from the following reason: as a young dog ascertains his proximity to game by his sense of smell, so, on his near approach, he is eager to seize it; but finding, after repeated trials, that he is unable to accomplish his purpose, he becomes more circumspect or wary, and will be observed to pause for a short space, and then make a sudden rush to secure his object. This pause is, no doubt, for the purpose of ascertaining, by his olfactory organs, the exact spot where the game is seated; and the observation of this very circumstance, there is not a doubt, originated the idea of the setting dog; the sportsman carefully improving, by education, a quality which he easily discovered would so essentially conduce to the pleasures of the field.

Taking it for granted, therefore, that all dogs which will range for game will naturally pause or set, yet none of the various kinds seems so quickly to adopt this sagacious manœuvre as the pointer or setter; nor is any one of them every way so admirably adapted as an auxiliary to the fowling-piece. Next to the Newfoundland dog, on the score of powerful instinct, or animal reasoning, may be ranked the pointer: his countenance is open, intelligent, and expressive; while his speed, strength, and persevering spirit, enable him to continue the chase for a length of time almost incredible.

For those who follow the diversion very ardently, and are out almost every day,

the setter will generally be found a valuable acquisition; but those who enjoy the fascinating amusement of shooting only occasionally, will find greater satisfaction in the more steady and better regulated exertions of the pointer; and, indeed, I have found good pointers (my own, for instance,) endure quite as much fatigue as the setter. Pointers are very susceptible of education, are easily broke or trained, and not so apt to forget their lessons as the setter.

The first object to be considered in training a dog, is the animal's temper: some dogs require frequent and severe correction, while, with others, mild treatment, and even encouragement, are indispensable. The most philosophic patience is an admirable quality in a dog-breaker, as many otherwise excellent dogs have been ruined by ignorance and brutal passion.

Well-bred dogs generally begin to hunt at an early period, though it will sometimes happen (but not often) that a dog will continue so long before he manifests a disposition for hunting, as to induce a suspicion that he is good for nothing.—Let no sportsman be too hasty in forming this conclusion. At the age of five or six months, or even earlier, you should allow your dog to accompany you, when you walk out, supposing it to be in the lanes or elsewhere; and, occasionally, lead him in a cord, or couple him with another dog. He may be allowed to ramble to a certain distance, so as not to be out of call; occasionally making him come behind you at the word *back*. The fewer words that are used in each lesson the better, which should be always the same, of the plainest sound, as well as the most distinct from each other, as the dog is guided by the sound alone; any meaning beyond what the sound and tone convey, is, of course, above the capacity of a quadruped.

It may be as well to teach him, at the same time, words of caution, such, for instance, as *take heed*; as well as of encouragement, as *good boy!* the latter should not be used *profusely*, but applied in the most judicious manner, as encouragement is very apt to induce a dog to commit errors. A plurality of teachers should, if possible, be avoided; one instructor being amply sufficient.

Whenever a dog is corrected, either at this period or afterwards in the field, he should not be suffered to leave you till he is satisfied that you intend him no further chastisement: for example, if a dog be

guilty of so great a fault, when hunting, as to render a severe flogging indispensable, you should not allow him to run away immediately after the flagellation, but compel him to remain at your feet for some seconds or a minute, otherwise, you will not be able to catch him, perhaps, should he require a second chastisement. When a severe flogging is necessary, it is advisable to put a cord round the neck of the dog, by which means the punishment may be administered more effectually.

After the dog has been thus brought under subjection, or reduced to the requisite obedience, at any period, from the age of eight to eighteen months, according as he is strong and healthy, he may be taken into the field, either with or without another dog, and suffered to hunt whatever he pleases, (except sheep or domestic animals,) and, in fact, to run riot. Larks, as they so frequently present themselves, will, most likely, be the first object of his attention; these he will spring and chase very eagerly; if partridges come in his way, he will do the same, with this difference only, that his eagerness will much increase; it will be still greater should he come in contact with a pheasant; and if a hare happen to rise before him, he will not fail to chase, with all imaginable ardour, and will, most likely, open in the pursuit. In this way he may be indulged till such time as he has become so attached to the sport that he may be checked without the least danger of his being overfaced, and thus induced to blink his game, or be otherwise rendered shy.

In a short period you will perceive him draw more cautiously upon the scent; on approaching his object, he will pause even at a lark; but when a partridge happens to be before him, his pause or stop will be more steady, and his manner altogether much more earnest; and the difference of the object will be very clearly manifested in his countenance.

If, contrary to expectation, he should manifest no disposition to pause or stop, after having been taken into the field half a dozen times, every time he springs the game, he must be brought back to the spot whence it rose, and compelled to crouch; the word *toho!* must be angrily spoken, and the whip used, if, after repeated cautions, he should pay no attention.

He should now be taken out with an old steady dog, and whenever he comes to a point, the word *toho!* should be used, and afterward the whip, should the word

prove unavailing. Whenever he sets, approach him at your regular pace, but seem not in a hurry, (as, if you run, he will be very apt to do the same) and stand by him for a few seconds; if the birds do not rise, he should be allowed to advance, by saying, *hold up!* be mindful, however, that he does not advance too rapidly; and, in order to effect this, make use of words expressive of caution, as *take heed!* When the old dog points, the young one should be taught to *back*, which may be accomplished in the following manner:—As soon as the old dog settles to a point, supposing the young one happens to be at a distance, he must be stopped, as the moment he perceives the point, he would, if left to himself, rush eagerly up: however, he must be prevented from so doing, by calling out *toho!* at the same time holding up your hand.—If he obey not by gentle means, recourse must be had to the whip. By these means he will, most likely, soon become very steady; for dog-breaking, if attended to at a proper period, and in a proper manner, does not give half the trouble that is generally supposed.—Holding up the hand is the signal for the dog to *back*; and, in a little time, whenever he sees it, he will immediately stop, though he may be at the other end of the field, or at a considerable distance.

At the same time, he should be taught to quarter his ground in a proper manner, as well as not to break fence. In beating a field, care should be taken to give him the wind; or, at least, he should never be suffered to run directly with the wind: if it blow in his face, so much the better; but a dog will hunt very well with a side wind. The dog should cross about twenty yards before the shooter, and if, after running down the field, he should not cross up again at about the distance just mentioned, he should be called to or whistled, and a wave of the hand should direct him across the field; unless indeed he catch scent, when he should be suffered, of course, to follow it. In case of attempting to *break fence*, he should be instantly whistled to, or called by name in an angry tone, using at the same time the words *'ware fence!* This will, in all probability, soon produce the requisite obedience; but should he refuse to obey the whistle or call, the *whip* must produce what more gentle means are unable to effect. If he refuses to pay attention to the whistle, he should receive a few stripes, (more or less, according to the disposition of the animal) the whistle occasionally used during the

operation, and continue to be so corrected, should he not return implicit obedience when called to. Thus he will soon become pleasingly tractable.

We will suppose that the dog is already steady at partridge; yet if he happens to approach a hare, he will scarcely fail to rush at her—at all events he will chase when she rises. In this case, he must be brought back to the place from whence he run, and made to crouch as before described, using the words *'ware hare!* or *'ware chase!*

Hitherto, I have supposed that the dog-breaker has been engaged with a mild, good-tempered animal, which will be easily rendered tractable by the means just described; there are, however, dogs of a very different description, which require an excess of flogging, aided by other coercive measures, in order to enforce that indispensable degree of subordination, without which, shooting, so delightful with well-trained pointers, is rendered irksome and vexatious.

If repeated severe flogging fail to accomplish the object of the sportsman, recourse must be had to the *trash-cord*, or rather *drag-cord*. This is a cord something like a clock-line, about twelve or fourteen yards in length, to be fastened round the dog's neck; on the moors the dog will run with twenty yards, while twelve or fourteen will soon tire him in enclosed grounds: the greater the length of cord, however, that can be used with propriety, the better: the cord may be shortened as the dog becomes fatigued. By the help of this cord, you will be able to stop him whenever you please. We will suppose that he makes a point: should he attempt to run in, you must check him as smartly as possible, making use of the word *toho!* and the whip also if you think proper. This cord will be very useful should the dog not come in when called, &c. If, after some little practice with the drag-cord, the dog perseveres in springing his game, or continues otherwise refractory, the *spiked collar* must be used. The *spiked collar* is merely a leathern strap, through which are inserted a dozen or more small nails, the points of which should extend half-an-inch beyond the surface of the inside. On the outside a piece of leather must be sewed over the heads of the nails, to prevent their starting back when the dog presses upon their points. This is to be buckled round the dog's neck, the points of the nails inwards, and the drag cord attached to it.

Thus, when it becomes necessary to check him on his attempting to run in, or behaving otherwise unruly, the admonition, or rather correction, will be much more impressive; in a little time, his neck will be very sore; and he must be contumacious beyond measure if this mode of punishment does not produce the desired effect.

The most difficult part of dog breaking is, perhaps, reducing the animal to perfect obedience in respect to hares. In the first instance, a young dog will eagerly pursue larks, or thrushes, or in fact any of the feathered tribe which he happens to meet with: the partridge being a larger object, and making considerable noise when taking wing, will be pursued by him with much more ardour; a similar remark will equally apply to the pheasant, which he will still more eagerly pursue: but very soon discovering the attempt to be hopeless, he will shorten the distance of his pursuit, and ultimately abandon the chase altogether. Not so, however, with the hare; for perceiving that it does not leave the ground, but runs like himself, he will not very easily relinquish the hope of overtaking her, but will rush forward with ungovernable ardour, and, even when lost sight of, will continue to follow the chase by the nose. But there are few dogs which may not be rendered steady in respect to hares by the means which we have pointed out, and that much sooner, of course, where hares are numerous, than where they are seldom met with. There is one effectual mode of reducing a dog to obedience in this respect, should the whip, the drag cord, and the spiked collar, fail of the desired effect. For this purpose, a living hare should be procured, to the neck of which a cord should be fastened; to the other end of the cord (which may be six or seven yards in length) should be attached a wire, which wire should be thrust through the snout or cartilaginous part of the dog's nose. The hare will, of course, spring forward at the sight of the dog, which will not fail to cause the most acute pain to the latter; the whip should be applied at the same time, accompanied with the words '*ware hare!*'—On all occasions of correction, the requisite word should uniformly accompany the punishment. This may be regarded, perhaps, as the excess of severity, and should never be resorted to but when all milder means have been repeatedly tried in vain. To prevent an obstinate dog chasing hares, I have sometimes seen the fowling-piece used as a re-

medy. It may be regarded as a desperate one, which, though it will generally have the desired effect, should be used with the utmost circumspection. If a dog is to be shot at, care should be taken that he is at a sufficient distance, as well as to hit him about the rump; otherwise you run great risk of *killing* him.

In the earlier part of these remarks I have mentioned mild-tempered dogs. It will be requisite here to observe, that well-bred dogs are occasionally met with so very shy as to require encouragement rather than correction: dogs of this description may sometimes prove excellent; but I must confess I do not like to see a *very shy dog*. Animals of this sort should never be taken out with dogs that need much rating or flogging, as the very sight of the whip alarms them to such a degree that they will not stir from behind you. Nothing is more difficult than to manage very shy dogs: they must be encouraged to hunt; and if they commit an error, the means of correction are difficult, and sometimes impossible; the least severity will most likely make them *blink* (*blinking* is when a dog finds game, and, on being spoken to, draws off, and runs behind you, and frequently without being spoken to) their game; and when once this habit is contracted, it will require more than ordinary pains to eradicate it.

As I have spoken of the various methods to be employed to render a dog steady at the point, to range, and also to *back*, I must observe, in this place, that a dog should never be suffered to *break fence*; or, in other words, to leave the field till you are ready to accompany him, as much mischief may ensue from his being suffered to ramble out of sight, or to a great distance. On his attempting to break fence, the whistle should be used, the dog should be called by his name in an angry tone, followed by the words, '*ware fence!*' the whip, &c. to be resorted to as in other cases, if necessary, to procure obedience.

Generally speaking, as little noise as possible should be made. The voice or the whistle should never be used, but when absolutely demanded; the dog will thus hunt steadier; and if you accustom him to the motion of your hand, he will regularly look for the signal whenever he is at a loss.

It is thought by some, that dogs *broke on the grouse mountains* are superior as to *ranging*: this is doubtful, if not a mistaken notion altogether. In this respect, much will depend upon the animal himself.

Young dogs in general hunt with their noses closer to the ground than old ones, and are apt to puzzle on the scent a considerable time after the game has left the spot. A little practice will, however, most likely remedy these defects; if not, recourse must be had to the *muzzle-peg*, an instrument very well known amongst sportsmen, but which I will, nevertheless, describe. The muzzle-peg is merely a piece of wood hollowed out and formed at one end so as to fit or receive the under jaw of the dog. From the dog's nose to the other end, projecting about nine inches, it is merely a round stick rather thicker than a man's thumb; though some persons, instead of one of these round projecting sticks, prefer two, forming an angle with the dog's nose. At the upper end of that part which is placed under the dog's nether jaw, two longitudinal holes or slits are made, through which a strap is inserted, which is buckled behind the animal's ears; while the other end of the thick part of the muzzle-peg, or that which comes under the canine teeth, or fangs, is perforated with two holes, through which a leather thong is drawn and tied immediately behind the fangs just mentioned. With this instrument, so fastened, the dog may be hunted without the least injury. At the first putting on, however, he will use every effort to rid himself of so disagreeable a companion, nor will he hunt, till he has satisfied himself of the inefficacy of his utmost exertions to get free from this unpleasant restraint. At length, he will become familiar with the instrument, and run with it as unconcernedly as possible; and it will make him carry his head well up, as well as prevent him chopping young hares, or mouthing in any way. A dog that *rakes* (that is, runs with his nose close to the ground) and follows his game by the track, will generally spring it. Whenever, therefore, a young dog is seen to follow the track of a partridge (down wind in particular) he should be called to in an angry tone, *hold up!* he will then become uneasy, going first to one side and then to the other till the wind brings him the scent. If, after a short period, he should persevere in keeping his nose to the ground, and in following the track, recourse must be had to the instrument I have just described.

Grouse, partridges, or any kind of game, lie much better to a dog that winds them, than to one which approaches by the track. The dog that winds the scent approaches the game by degrees, and that

more or less as he finds it wild or otherwise, which he is enabled to discover by the scent which is emitted; and though grouse or partridge see him hunt round them, they will be much less alarmed than when they observe him following their track, and suffer his near approach; or, in other words, *lie well*. The reason seems evident:—the dog, I apprehend, is seen by the birds (generally speaking) as soon as he enters the field; or, at all events, at a very considerable distance; and the moment they perceive him approach by the track, they take the alarm, supposing themselves discovered, or, at least, very likely to be discovered; but watching, as they assuredly do, the motions of the dog, and observing that he does not follow the track along which they have run, they conceive themselves undiscovered, and thus allow the dog to come to a steady point. It may, moreover, be further remarked, that a dog which carries his head high will always find the most game, to say nothing of finding it in a handsome style.

A YOUNG dog should be kept regularly to his work, if possible, until he become quite staunch. Great care should be taken with him the first season he is shot over, as it seldom fails to determine his worth: at this period, numbers of otherwise valuable dogs are ruined by improper treatment, particularly by ignorant, passionate game-keepers and dog-breakers: no fault, however, should be allowed to escape correction or *reproof*. I do not mean that the dog should be flogged for every trivial mistake, but that the most trifling error should be noticed by sounds or symptoms of displeasure; and, proceeding this way, you should administer correction according to the degree of crime.

We will suppose the young dog broke, and taken out to put into effectual practice all his previous instruction. On the first shot, particularly if the dog see the bird fall, he will be very apt to break away, in which case he should be brought back to the spot whence he had run, and there making him lie down, call out, *down charge!* He should be compelled to remain in that position till the gun is reloaded; and the disposition and temper of the animal should be the rule and guide of correction. A well-bred dog will generally become perfect in this lesson in a very short period.

It sometimes happens that a young dog will testify every symptom of alarm on the firing of the fowling-piece:—will, per-

haps, run home, and be with difficulty brought again to the field. When this occurs, I consider it a very unfortunate circumstance, as it will frequently require no ordinary pains to free the dog from this unnecessary fear. There is no better mode of effectually remedying the evil, than by convincing the animal that the discharge of the fowling-piece is intended for a very different purpose than to create alarm. He must, therefore, be brought back, and compelled to remain in company with the sportsman: he must, in fact, be led in a cord, to prevent his running away again; and if an attendant be not in the field, the sportsman may tie the cord round his own body. A few birds should be killed over him as quickly as possible, which should be shewn to him, and he should be allowed to mouth them, if he appears inclined to do so: if a bird happens to be winged, he should be enticed to foot it:—thus he will very soon comprehend the true intention of the fowling-piece: his fears will subside; and he will shortly manifest as much anxious joyful expectation at the sight and sound of a gun, as he previously testified alarm and terror.

Some persons accustom their young dogs to the report of fire-arms at a much earlier period than when taken into the field; in fact, when they are very young. Certainly, if they endure the report of a gun or pistol at this early period, there can be little dread of their taking alarm when brought into the field: but if a very young dog or whelp takes fright on the report of a pistol or gun, his fears will become so rooted that much greater difficulty will arise in completing his education than in the case I have before stated. In fact, all firing of guns or pistols near him should be cautiously avoided, as a practice of this sort will but increase his alarm, unless, indeed, it were daily, and almost incessantly, resorted to. The dog must be regularly broke, and, when taken into the field with the fowling-piece, treated in the manner I have described above. It is highly important to convince the dog that the fowling-piece is for the purpose of killing the game, which he is to find; and this cannot be done when shooting merely to accustom him to the sound, as no object is thus placed before him. For the same reason I do not strongly recommend the practice of teaching dogs, when very young, to crouch in the lanes, &c. when you happen to be walking out, as the animal cannot be thus

aware of the ultimate intention of his master, or conscious of the object for which he is compelled to become prostrate: this method, in fact, teaches the dog to crouch too much, and, on that account, I never practise it, or, in other words, force my pointers to endure such abject and unmeaning servitude.

The best dogs may sometimes make mistakes—on bad scenting days, for instance; or if they happen to run down wind, particularly when it is blowing strong. On such occasions, it would be cruel to flog them, though the words expressive of caution may be used.

Well-bred pointers, as I have before observed, if taken into the field at a proper period, will, in general, require little breaking; they will often point and back of themselves, and, in fact, give the sportsman very great satisfaction with very little trouble.

The dog that first finds the game should always go up to it; and on no account should another be suffered to pass or run before him. It is like snatching his well earned reward, to say nothing of the confusion which must ensue from such a culpable practice.

A pointer or setter should never be named *Carlo*, *Sancho*, or, indeed, any other name ending in *o*, as the word *toho* is so frequently indispensable, and ending in the same sound, is apt to cause misunderstanding and confusion. A dog's name should consist of one expressive syllable, which comes forcibly from the mouth, such as *Bob*, for instance, and, where more than one dog is used, their names should sound as differently as possible.

It but too frequently happens that young dogs manifest an inclination to *hunt and worry sheep*, which must be instantly corrected. If a severe flogging have not the desired effect, the dog should either be tied to a strong ram, leaving a sufficient length of cord to allow the ram to make a run; or they should be confined together in a barn or some building. Flog the dog till he cries out, making use of the words '*ware sheep!*' The ram will not fail to commence a furious attack upon him, and will butt him most violently. They should be kept together for twenty minutes; the ram will not fail to continue his butting, and it may not be amiss to flog the dog several times during this period, making use of the words just mentioned at the same time. This will, most likely, prevent the dog ever looking

at sheep afterwards, unless, perhaps, where he has absolutely bitten them before this system of correction was put in practice, in which case, I am not aware of any mode of punishment or correction that can be depended on; for, although the dog may not even notice sheep in your presence, yet he will, nevertheless, be very apt to steal away, as opportunity may offer, for the purpose of depredation:—when once dogs have *tasted mutton*, they are never to be trusted. Indeed, I have seen an instance or two, where the dog, after having been a little butted, has fiercely turned upon the ram, which he would have torn to pieces had he not been prevented; but a circumstance of this sort rarely occurs, and, in the instances to which I allude, the dogs were grown rather too old to be cured by this or any other mode short of confinement or death. If a young dog look earnestly at, or *set*, a sheep, he should be corrected; and, if you find him repeat it, have recourse to the ram, as by far the most effectual mode that can be adopted. A dog should be corrected, in fact, the moment he is observed to manifest the slightest inclination even to notice sheep; as he will, if not checked, first look and set, then chase, and, ultimately, worry them.

As to poultry, the evil is not of so much magnitude, nor the disposition to worry it so difficult to subdue, as when sheep are the object; besides, poultry, by being generally about the house or premises, afford better, as well as more frequent, opportunities of observation. Young pointers are very apt to make their first essay, as it were, by worrying chickens, or pigeons, where

they happen to be very tame. Early and severe flogging will, however, generally remedy the evil: if not, tie a fowl (a living one is the best, on account of its fluttering) to the dog's tail, and tie it in such a manner, either by a cleft stick or otherwise, that it may give the dog considerable pain. Take him to a place some distance from his kennel, and, after giving him a few smart strokes with the whip, let him loose, and he will seldom fail to run home, howling all the way, (just as if a tin kettle were tied to him) and terrified beyond measure. He should, however, be followed, dragged from the farther end of his kennel, in which he will, no doubt, endeavour to hide himself, and be again well flogged; and the fowl, being taken from his tail, should be buffeted about his head.

I have met with sportsmen who teach their pointers to fetch the dead bird: I must confess I am not fond of this method, as the dog, thus accustomed to fetch the bird, is very apt to break away on the shot, whether a bird be killed or not.

BREAKING DOWN. This is an accident that often occurs during violent exertion, as in racing. It has been said to depend upon a rupture of the suspensory ligament of the leg; but the injury more commonly is, a severe strain of the sheath of the flexor tendon or back sinew. When the ligament is broken, it may be known by the increased obliquity of the pastern. The fetlock joint being bent nearly to the ground, the horse still has the power of moving the pastern, which could not be the case if the tendon were ruptured.

BREAKING HORSES. A well-known species of discipline exercised on colts, for the purpose of rendering them serviceable to man. There is a general want of well-qualified men in this way, as well as of good farriers. Our chance-medley breeders either break their horses themselves, or commit it to persons equally ignorant; whence the number of our *garoons*, the breed and education of which are so well matched.

The utmost care should be used to teach a colt his paces *distinctly*. You will observe numbers of horses, trained and ridden by little farmers and countrymen, which confuse and jumble the paces one into the other, shuffling between walk and trot, and trot and gallop, till they acquire a kind of rocking pace, from which it is no easy task to reclaim them: or they will, perhaps, go one pace only. If the colt be unfavourably made forward, and it appear from the mal-conformation of his neck, and the ill setting-on of his head, that he can never have a handsome carriage, double care must be taken to give him a well-

tempered mouth, the only thing that can render a horse of this unfortunate description tolerable.

Such as show much blood, or stoop forward, and lounge in their gait, in the usual manner of bred cattle, ought to be well set upon their haunches.

The future goodness and value of the nag materially depend upon early tuition. If he be defective in bending his knees, let him be ridden daily in rough and stony roads; or, if that fail, cause him to be ridden every day, for a month or more, with blinds. Being blinded, he will naturally lift up his feet. I have experienced the use of it.

When a colt is refractory, it is usual to tame him, by riding him immoderately over deep earth. It is a silly custom, and often productive of great mischiefs, by weakening the tender joints of a young horse, breaking his spirit, or rendering it totally desperate.⁵ Coolness and perseverance are here the requisites: there is no horse with a stomach so proud, which a level course will not bring down.

The most proper period for breaking a saddle-colt, is the usual one, when *three years old*. In the common mode of performing this premier act of horsemanship, there is very little variation since Barret's days; or rather, it may be said, we have universally adopted his improved method. A head-stall is put upon the colt, and a cave-son over his nose, with reins. He is saddled, then led forth with a long rein, and, in due time, lounged, or led round a ring, upon some soft ground. As soon as he has become tolerably quiet, he is mounted, a proper mouth and carriage given, and his paces taught. When sufficiently instructed, he ought (in general) to be dismissed, until the following spring—an early period for serious business.

There are some who choose to defer breaking their colts until four years old, for which they often find just cause of repentance, in the strength and stubbornness of the horse: such practice would, however, be at least somewhat more safe, if a favourite method of mine were adopted, which is, to accustom colts to handling, to the halter, and the bitt, immediately upon their weaning.

BREAKING THE DEER. The term formerly used for cutting up the deer after the chase.

BREAKING THE HERD. The ceremony of singling out a deer from the herd for the chase.

BREAM. The bream is a very bony fish: they are not very numerous, either in the rivers Thames or Lea, but abound in the Trent, Wey, Byfleet, and the Mole, and several other rivers; also in Dagenham breach, and in the wet docks at Blackwall. They are frequently taken in the spring, during March, April, and May, when angling for carp with red worms. When angling for bream, use a gut line, long rod, quill float, and No. 9 hook, running tackle, and winch; ground bait with

new grains, or greaves, bran, and clay, made into balls, or chopped worms thrown in by handful. Let the baited hook drag half-an-inch on the ground in streams, and fish early in the morning and very late at night. Bream seldom bite in the middle of the day during summer months, unless it blows fresh, or warm rain descends; they then will take a bait freely all day, especially if the place has been well ground baited the night before. Two red worms put on the hook, or one well-scoured marsh-worm, is the best for bream: generally speaking, they will take gentles, and sometimes paste, and also wheat and malt, slightly baked or parboiled. When you angle for bream in a river, fish out further in the stream than when angling for roach;

and immediately you observe a bite, strike. If you are angling in quite still water, you may use two rods and lines, to which put small cork floats; cast the baited hook a good way in the water, having first plumbed the depth: the bait should hang just clear of the ground, that a gentle breeze may slowly move it; lay the rod over some rushes or sags; if there are none, choose a branch of a tree with a forked top close to the water, and let the rod rest on it; stand back, and wait patiently and quietly for a bite. By this method, where bream are plentiful, you may soon fill a basket; for they are a free-biting fish, and, though generally considered of little worth, yet they afford much amusement to the angler in bends and broad still parts of rivers, and not very deep places, where the bream like to resort.

The bream is a very broad fish, with scales somewhat like the carp, but lighter in colour, and, when large, are much like a bellows in shape; the head and mouth are small, large eye, and forked tail, which is of a dull purple colour, as also the fins: they will breed in still waters as well as in rivers, if the bottom is clay or loamy, as they prefer still or sluggish streams to large or rapid rivers: they spawn in May, and will grow to the weight of six pounds. Bream love such places as the carp and tench do in rivers; they will also take the same baits, and, like the carp, struggle hard, particularly when they first feel the hook; therefore, give him line freely before you attempt to turn him, if a heavy fish; for, like heavy barbel, they are often very sulky, and hang on the bottom for some time, then rush with violence under a bank, among weeds, &c.

There is a fish in the Broads (which are a larger piece of water so called in Norfolk,) much like the bream, which is known there by the name of bream-flats, dace, or red eye; it is a thicker fish than the bream, and somewhat hog-backed, like the perch, and the fins are red: this fish is generally covered with a slimy substance, and is altogether a very indifferent fish for the table: they are easily taken with worms, gentles, or paste.

BREECHES, } See HARNESS.
BREECHING. }

BREEDING. See HORSE.

BREEDING DOGS. See POINTER, &c.

BRIDLE. See BIT.

BRIDLE HAND. The horseman's left hand.

BROCKELSBY BETTY, the property of Mr. Pelham, a Lincolnshire gentleman,

was deemed by many sportsmen the best mare ever bred in this country. She was got by the Curwen Bay Barb, out of the Hobby mare, by the Lister Turk, which horse was brought into England, by the Duke of Berwick, from the siege of Buda, in the reign of James II. In April, 1716, she beat a crack mare of the Duke of Devonshire, at Newmarket; in August, she won the gold cup at Black Hambleton. In April, 1717, the gold cup at Newmarket; in August, a silver tea-board at Lincoln; in October, a gold cup at York, and the king's plate at Newmarket. In April, 1718, the gold cup at Newmarket: in May she beat the Duke of Wharton's Snail, a match for 200 guineas, and the Duke of Bridgewater's Ashridge, a match for 900 guineas, which last horse was reckoned the best of his day. Brockelsby Betty was dam of a grey filly and a chestnut colt, both of which were named Brockelsby,—the former (1721) by Greyhound; the latter (1723) by Woodcock. In 1722 she missed to Woodcock. We are unacquainted with the time of her death.

BROKEN KNEES. When this accident is only slight, it will be sufficient to wash the horse's knees several times a day with a solution of sugar of lead—two ounces of the sugar of lead to two quarts of water. After using this for two or three days, the inflammation and swelling will subside. But if the knees are very badly broken, first wash them very carefully with warm water; then apply a poultice, and change it every morning and evening, till the inflammation and swelling of the knees have subsided; stimulating applications will then be proper, such as a solution of blue or white vitriol: when the wound does not heal under this treatment, use the following ointment:—

Ointment of yellow rosin, 4 ounces.
Oil of turpentine, 2 drachms.
Red precipitate in fine powder, 3 drachms.

If the new flesh should rise higher than the surface, sprinkle it over with burnt alum finely powdered. Some men have a wonderful facility in breaking the knees of their horses; nothing contributes so much to it, as riding with the reins always tight: this punishes the horse unnecessarily, and makes him careless of his steps, and he will come down much sooner than if he was ridden with an easy rein. If a man gets on to horseback, and is afraid the horse will come down with him, he is almost sure to do so. Neatsfoot, or any animal oil, is an admirable application for reproducing hair on a broken knee.

BROKEN WIND. It seems that those who first named this disease were well acquainted with its nature. It has been called broken wind time out of mind, and it is in reality a broken lung; and it may be defined to be a rupture of the membrane connecting the air-cells of the lungs together: it is so striking, that the person who has once seen it cannot afterwards mistake it. In this disease, the respiration of the animal is laborious, and apparently more affected than in any other to which he is subject. Both the inspiration and expiration of the horse, when in health, we find to be uniformly of the same length; but the horse labouring under this disease has the expiration very long, and the inspiration very short, which may be well seen by observing the flanks of the animal, for the muscles are a long time in drawing themselves up, and forcing the air out of the lungs; but they very readily fall, and allow the admission of the air into the lungs. The lungs of these diseased animals are specifically lighter than healthy lungs. The disease is brought on by violent exertion during the time that the stomach is much loaded, and particularly with water; and when this is the case, the abdominal muscles and diaphragm cannot act in respiration, which distresses the animal to the utmost degree, more particularly if exercised; for the horse is the only animal we can compel to exertion, when distressed by it. After eating, you may observe that the dog will refuse to hunt. It is inconsistent with the health of the horse, to offer him as much food of any kind as he can eat; for however full he may be, he is always hungry, and willing to devour more, which passes off almost as fast as it is taken in. This disease is much more frequently produced by some kinds of food than others, depending, as we shall find, upon its bulk. In the cavalry, when hay is cheaper than oats, we find this disease very common; but when the reverse happens, and oats are cheaper than hay, it is very rare, for the food, not being so bulky, does not distend the stomach and colon so much as in the other instance. We see very little of this disease in post and mail-horses, and the reason is obvious; no horses are better fed than these horses; none are in better condition, or can do more work; they have as much corn as they can eat, which is nearly half-a-bushel; they are allowed only about five pounds of hay per day, and that is best given after labour, or in the night.

Again, the post-horse never has his allowance of water till he has entirely finished his work; and we always observe that these animals go very fleetly, and perform long journeys, without a fault. A broken-winded horse can scarcely be heard to cough; when he does, it is a mere effort, as he has not the power of forcing the air from his lungs, and making the shrill noise which a sound horse makes when coughing. The mode of ascertaining this disease, when the horse stands still, is to pinch his windpipe with the finger and thumb; this produces cough which takes place in health; but it is so faint in this disease, as hardly to be heard across the stable, and is what the dealers call an inward cough; and whoever has once heard it will never mistake it. Medicine cannot possibly do good in this disease; regimen is the only means we can place any confidence in; and, by proper regimen, a horse so affected will do a vast deal of work, and do it well. It would be proper, after he has had his allowance of oats, to muzzle him, to prevent him eating his litter during the night, which he will do without such precaution.

BROOK-HAWKING is a sport which is managed with the gerfalcon and jerkin, the haggard, and the tiercel gentle.

There are in many places ponds inclosed with woods, bushes, and the like obscurities, so that they are concealed from passers; and to such places wild ducks very much resort.

To train up a hawk for this kind of diversion, the following are the directions:

The hawk being in all points ready to fly, a trained duck should be provided; and a man should lie concealed in some bush by the pond with them; so that when you come to the place, and the hawk is ready for the sudden flight, beat the bush where the man lies concealed with the duck, when he must let it fly; when, if the hawk take it with courage, reward her well.

The hawk being trained to this, you may confidently go with her to the ponds where the fowls are to be found; and, creeping as close as possible to the place, raise them by beating about with a pole: when they rise, let go the hawk; and if she seize, let her enjoy it, and be well rewarded.

BROW ANTLER. That branch of a deer's horn next the head.

BRUISES. When a horse has got severely bruised, bleed, and give him a purgative; and either foment the part, or

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apply a poultice. Should matter form, it is to be treated as an abscess. If any hard swelling remains, attempt to disperse it by rubbing it well with some stimulating liniment, as the following:—

Soap liniment, 4 ounces.

Liquid ammonia, 1 ounce.—Mix.

Should this fail, you must have recourse to a blister.

BRUSH. The tail of a fox.

BUCK. The male of the fallow deer.

In his first year he is called a fawn; the second, a pricket; the third, a sorrel; the fourth, a sove; the fifth, a buck of the first

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head; the sixth, a great buck. In colour they are mottled, sandy, or a deep dingy brown.

BUCK-HUNTING has been of late years but little practised: for the chase the buck is not equal to the stag, though he is pursued in the same manner: he is neither so strong nor so swift as the stag, and therefore seldom stands up long before the hounds. See **STAG**.

BUCK-STALL. A kind of large net, called also a **DEER-HAY**, for taking deer. See **NET**.

BUFFALO. This animal, in its general form, has a great resemblance to the common ox, but it differs from it in its horns, and in some particulars of its internal structure. It is larger than the ox; the head is also bigger in proportion, the forehead higher, and the muzzle longer. The horns are large and of a compressed form, with the exterior edge sharp: they are straight for a considerable length from their base, and then bend slightly upwards. The general colour of the animal is blackish, except the forehead and the tip of the tail, which are of a dusky white. The hunch is not, as many have supposed it, a large fleshy lump, but is occasioned by the bones that form the withers being continued to a much greater length than in any other animal.

Buffaloes are natives of the warmer parts of India and Africa, but have been introduced into some of the countries of Europe, where they are now become naturalized. In Italy they are perfectly domesticated, and constitute an essential part both of the riches and food of the poor. They are there employed in agriculture; and butter and cheese are made from their milk. These animals are very common in western Hindostan. They are fond of wallowing in the mud, and will swim over the broadest rivers. During inundations they are frequently observed to dive ten or twelve feet deep, to force up with their horns the aquatic plants, which they eat while swimming.

In many parts of the East, as well as in Italy, buffaloes are domesticated. It is said to be a singular sight to see, morning and evening, large herds of them cross the Tigris and Euphrates. They proceed all wedged against each other, the herdsman riding on one of them, sometimes standing upright, and sometimes crouching down; and, if any of the exterior ones are out of order, stepping lightly from back to back, to drive them along.

The buffalo met with in Africa is an animal of a very savage disposition. It is very large and uncommonly strong, and is frequently seen in herds in the neighbourhood of the Cape. The fore parts of the body are covered with long, coarse, and black hair. The horns are thick and rugged at the base, sometimes measuring three feet in length, and lying so flat as to cover almost all the top of the head.—The ears are large and slouching. The body and limbs are very

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thick and muscular; and the animal is above eight feet long and six in height. The head hangs down, and bears a most fierce and malevolent aspect.

In the plains of Caffraria, buffaloes are so common, that it is by no means unusual to see one hundred and fifty or two hundred of them in a herd. They generally retire into the thickets and woods in the day time, and at night go out to graze. Treacherous in the extreme, they frequently conceal themselves among the trees, and there stand lurking till some unfortunate passenger comes by, when the animal at once rushes out into the road and attacks the traveller, who has no chance to escape but by climbing up a tree, if he is fortunate enough to be near one. Flight is of no avail, he is speedily overtaken by the furious beast, who, not contented with throwing him down, and killing him, stands over him even for a long time afterwards, trampling him with his hoofs and crushing him with his knees; and not only mangles and tears the body to pieces with his horns and teeth, but likewise strips off the skin by licking it with his tongue. Nor does he perform all this at once, but often retires to some distance from the body, and returns with savage ferocity, to gratify afresh his cruel inclination.

As Professor Thunberg was travelling in Caffraria, he and his companions had just entered a wood, when they discovered a large old male buffalo lying quite alone, in a spot that, for a few square yards, was quite free from bushes. The animal no sooner observed the guide, who went first, than, with a horrible roar, he rushed upon him. The fellow turned his horse short round behind a large tree, and the buffalo rushed straight forward to the next man, and gored his horse so dreadfully in the belly, that it died soon after. These two climbed into trees, and the furious animal made his way towards the rest, of whom the Professor was one, who were approaching, but at some distance. A horse without a rider was in the front; as soon as the buffalo saw him, he became more outrageous than before, and attacked him with such fury, that he not only drove his horns into the horse's breast, but even out again through the very saddle. The horse was thrown to the ground with such excessive violence that he instantly died, and many of his bones were broken. Just at this moment the Professor happened to come up, but from the narrowness of the path, having no room to turn round, he was glad to abandon his horse, and take refuge in a tolerably high tree. The buffalo, however, had finished; for, after the destruction of the second horse, he turned suddenly round and galloped away.

Some time after this, the Professor and his party espied an extremely large herd of buffaloes grazing on a plain. Being now sufficiently apprised of the disposition of these animals, and knowing they would not attack any person in the open plains, they approached within forty paces, and fired amongst them. The whole troop, notwithstanding the individual intrepidity of the animals, surprised by the sudden flash, and report, turned about and made off towards the woods. The wounded buffaloes separated from the rest of the herd,

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from their inability to keep pace with them. Amongst them was an old bull buffalo, which ran with fury towards the party. They knew that, from the situation of the eyes of these animals, they could see in scarcely any other direction than straight forward; and that in an open plain, if a man that was pursued, darted out of the course, and threw himself flat on the ground, they would gallop forward to a considerable distance before they missed him. These circumstances prevented their suffering any material alarm. The animal, from this contrivance, passed close by them, and fell before he appeared to have discovered his error. Such, however, was his strength, that, notwithstanding the ball had entered his chest, and penetrated through the greater part of his body, he ran at full speed several hundred paces before he fell.

The Cape buffalo is frequently hunted both by Europeans and the natives of South Africa. In Caffraria, he is generally killed by means of javelins, which the inhabitants use with considerable dexterity. When a Caffre has discovered the place where several buffaloes are collected together, he blows a pipe, made of the thigh bone of a sheep, which is heard at a great distance. The moment his comrades hear this notice they run up to the spot, and, surrounding the animals, which they take care to approach by degrees, lest they should alarm them, throw their javelins at them. This is generally done with so sure an aim, that out of eight or twelve, it is very rarely that a single one escapes. It sometimes happens, however, that, while the buffaloes are running off, some one of the hunters who stands in the way, is tossed and killed; but this is a circumstance not much regarded by the Caffres. When the chase is ended, each one cuts off and takes away his share of the game.

Some Europeans at the Cape once chased a buffalo, and having driven him into a narrow place, he turned round, and instantly pushed at one of his pursuers, who had on a red waistcoat. The man, to save his life, ran to the water, plunged in, and swam off: the animal followed him so closely, that the poor fellow had no alternative but that of diving. He dipped overhead, and the buffalo, losing sight of him, swam on towards the opposite shore, three miles distant, and, as was supposed, would have reached it, had he not been shot by a gun from a ship, at a little distance.

Like the hog, this animal is fond of wallowing in the mire. His flesh is lean, but juicy, and of a high flavour. His hide is so thick and so tough, that targets, musket proof, are made of it; and even while the animal is alive, it is said to be in many parts impenetrable to a leaden musket ball: balls hardened with a mixture of tin, are therefore, always used, and even these are often flattened by the resistance. Of the skin, the strongest and best thongs for harness are made. The Hottentots, who never put themselves to any great trouble in dressing their victuals, cut the buffalo's flesh into slices, and then smoke and at the same time half broil it, over a few coals. They also frequently eat it in a state of putrefaction.

The American Bison is an animal of the same species, and has

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short rounded horns, pointing outwards ; it is covered in many parts with long shaggy hair, and has a high protuberance on the shoulders. The fore parts of the body are excessively thick and strong, and the hinder parts are comparatively very slender.

These animals range in droves, feeding in the open savannahs, morning and evening. They retire, during the sultry parts of the day, to rest near shady rivulets and streams of water, frequently leaving so deep an impression of their feet in the moist sand (from the great weight of their bodies) as to be thus traced and shot by the artful Indians. In this undertaking it is necessary that the man should be particularly careful, since, when only wounded, the animals become excessively furious. The hunters go against the wind, as the faculty of smell in the bison is so exquisite, that the moment they get scent of their enemy, they retire with the utmost precipitation. With a favourable wind, the men approach very near, since the animals are frequently almost blinded by the hair that covers their eyes. In taking aim, they direct their piece to the hollow of the shoulder, by which means they generally bring them down at one shot. If they do not fall, they immediately run upon their enemy, and, with their horns and hoofs, tear him to pieces and trample him into the earth.

They are so amazingly strong, that when they fly through the woods from a pursuer, they frequently brush down trees as thick as a man's arm; and, be the snow ever so deep, such is their strength and agility, that they are able to plunge through it much faster than the swiftest Indian can run in snow shoes. "To this (says Mr. Hearne,) I have been an eye witness many times, and once had the vanity to think that I could have kept pace with them; but though I was at that time celebrated for being particularly fleet in snow shoes, I soon found that I was no match for the bison, notwithstanding they were then plunging through such deep snow, that their bellies made a track in it as large as if many heavy sacks had been hauled through it.

In Canada, hunting the bison is a very common employment of the natives. They draw up in a large square, and commence their operations by setting fire to the grass, which, at certain seasons, is very long and dry. As the fire goes on, they advance, closing their ranks as they proceed. The animals, alarmed by the light, gallop confusedly about, till they are hemmed in so close that frequently not a single beast escapes.

In Louisiana, the men mount on horseback, each with a sharp crescent-pointed spear in his hand. They approach with the wind, and as soon as the animals smell them, they instantly make off; but the sight of the horses moderates their fear, and the majority of them, from their luxuriant feeding, are, at certain times of the year, so fat and unwieldy, as easily to be enticed to slacken their pace. As soon as the men overtake them, they endeavour to strike the crescent just above the ham, in such manner as to cut through the tendons, and thus render them an easy prey.

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The hunting of these animals is also common in several parts of South America. It commences in a sort of festivity, and ends in an entertainment, in which one of their carcasses supplies the only ingredient. As soon as a herd of cattle is seen on the plain, the most fleet and active of the horsemen prepares to pursue them; and, descending in the form of a widely extended crescent, hunt them in all directions. After a time they become so jaded and weary, that they seem ready to sink under their fatigue; but, the hunters, still urging them to flight by their loud cries, drive them at last from the field.—Such as are unable to exert the necessary speed for escape, are slaughtered. The hunters, from these, supply themselves with what flesh they want, and abandon the rest to the wolves.

The sagacity which the bison exhibit in defending themselves from the attacks of the wolves, is admirable. When they scent the approach of a drove of those ravenous creatures, the herd throws itself into the form of a circle, having the weakest in the middle, and the strongest ranged on the outside; thus presenting an impenetrable front of horns. When, however, they are taken by surprise, and have recourse to flight, numbers of those that are fattest and most weak must infallibly perish.

BUGLE HORN. The horn formerly used by huntsmen was called a bugle horn; this was when stag hunting was common all over the kingdom; various sounds or airs were then employed in the chase, which have since been abandoned. In fact, stag hunting is at present but little pursued: it has been superseded by the chase of the fox, and the straight horn

generally adopted in preference to the bugle; at all events, the horn now employed in the chase, is merely to call the hounds round the huntsman, if we except the ceremonies used on turning out a royal deer. The horn is used both with fox hounds and harriers, merely in the way in which we have just described it.

BULL BAITING was formerly a very popular amusement in this country; it was frequently attended by noblemen of the first distinction; and even royalty itself occasionally honoured the bull ring with its presence. The method of baiting a bull is the following:—the animal is fastened to a stake driven into the ground for the purpose, and about seven or eight yards of rope left loose, so as to allow him sufficient liberty for the fight. In this situation a bulldog is slipped at him, and endeavours to seize him by the nose; if the bull be well practised at the business, he will receive the dog on his horns, throw him off, and sometimes kill him; but, on the contrary, if the bull is not very dexterous, the dog will not only seize him by the nose, but will cling to his hold till the bull stands still; and this is termed *pinning the bull*. What are called good *game bulls* are very difficult to be pinned: animals of this description are constantly on their guard, and, placing their noses close to the ground, they receive their antagonist on their horns; and it is astonishing to what distances they will sometimes throw him. It is not deemed fair to slip or let loose more than one dog at one and the same time.

The first bull-baiting, well authenticated to have taken place, was during the reign of King John, in 1209, at Stamford in Lincolnshire,

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and originated in the following circumstance :—William, Earl Warren, Lord of Stamford, standing upon the walls of the castle, observed two bulls fighting for a cow in the castle meadow, till all the butchers' dogs pursued one of the bulls (maddened with noise and multitude) entirely through the town. This sight so pleased the Earl, that he gave the castle meadow, where the bulls' combat began, for a common, to the butchers of the town, after the first grass was mown, on condition that they should find "a mad bull," the day six weeks before Christmas day, for the continuance of "that sport for ever."

A similar institution, under the appellation of bull-running, was established at Tutbury, in Staffordshire, about the year 1374, where, by the custom of the manor, a bull was given by the prior to his minstrels. After having his horns cut off, and his body besmeared with soap, he was turned out to be hunted by the multitude; and when taken or obstructed long enough to pull off some hair, he was chained to the stake to be baited by dogs. This custom was abolished in 1778.

One George Staverton, by will, bearing date May 15, 1661, gave the whole of his dwelling house, situated at Staines, in Middlesex, (after two lives) to purchase a bull annually for ever; which bull he gave to the poor of the town of Workington, in Berkshire, to be there baited, then killed, and equitably divided; the offal, hide, and gift-money (collected from the spectators) to be laid out in shoes and stockings, to be distributed among the children of the poor. The chief alderman, and one Staverton (if one of the name should be living in the town or neighbourhood) to see the work truly and justly performed, that "one of the poor's piece did not exceed another's in bigness." In the town of Workington, St. Thomas's day was annually dedicated to the sport, and the public market-place the spot invariably appropriated for it.

James I. was much attached to the diversion of bull-baiting; and, amongst other places for the enjoyment of his favourite sport, he was in the habit of visiting Coleorton, in Leicestershire. Coleorton is a very large, but straggling village, about three miles from Ashby de la Zouch, and, for a century or two, famous for its coal mines. The miners or colliers, were passionately fond of the sport in question, which, perhaps, received an additional zest from the visits of the monarch. Bull baiting was carried on with unabated vigour at this place, from the time we have just mentioned; and about thirty years ago, was as popular as ever; of which the writer (then a school-boy) at the period just mentioned, was frequently an eye witness. Shortly after this, bull baiting declined, in some degree, from magisterial influence, but much more from the decline of what may be called the trade of the place: the coal mines became exhausted, and the miners were consequently under the necessity of seeking employment elsewhere. They removed principally to the Potteries, in Staffordshire, where there was plenty of coals; and where, from the increase of the earthenware business, an increase of coal miners was

indispensable. These miners carried their customs and amusements from Coleorton, in Leicestershire, to the Potteries, in Staffordshire, and bull, as well as bear, baiting continued to flourish. On the establishment of peace, the trade of this part of the country declined, and bull baiting declined also: it has not yet been altogether abandoned.

About two centuries ago, bull baiting was common all over the kingdom; it has gradually declined; though in some market and other towns, the bull-ring is pointed out, and the very stake to which the bull was fastened is still in existence.

BULL-DOG. The English bull-dog is uniformly allowed to possess the most undaunted and the most persevering courage of the whole dog tribe; but the breed is said to degenerate if removed to any other country. There is something uncouth and forbidding in the appearance of this animal: the short head, the ferocious underhung jaw, the distension of the nostrils, and the constant sight of the teeth, give it an appearance at once unsightly and terrific.

As the bull-dog differs in appearance from all other dogs, so his temper and disposition seem equally removed from the general standard. It is a well-known fact, that dogs are creatures of a most forgiving disposition, and far more mindful of benefits received than of injuries sustained; but the bull-dog offers, in a great degree, the reverse of this portrait, and appears seldom, if ever, to forget or forgive any serious insult which has been offered to it. Many incontestible instances might be given of the bull-dog's implacable resentment; but perhaps the following will be regarded as sufficient: Mr. Richard Wright, a gentleman who resided in Ormskirk (Lancashire) for many years, and who died about the year 1806, had two well-bred animals of this kind, (dog and bitch) with which he was in the habit of the greatest familiarity; from some circumstance, however, he chastised one of them rather severely, which the animal did not resent at the time; but, as Mr. Wright sometimes introduced them into the parlour, for the purpose of caressing them, on one of these occasions, the animal which he had formerly chastised seized him by the neck, and clung to its hold with the most obstinate perseverance, till it was killed.

It is very well known, that the bull-dog is capable of maintaining his hold with incredible perseverance; this, of course, arises, in a great degree, from his courage; but this alone would not be sufficient

for the purpose: it will be found, on examination, that he is peculiarly formed for this purpose; and by the protrusion of the nether jaw, and the consequent recession, as it were, of the nose, the animal is enabled to breathe with tolerable freedom, even while his jaws are fastened to the object.

It is an invariable characteristic of the true-bred bull-dog to attack in front, and never to make a cowardly attempt at the extremities. The true-bred dog, the moment he is slipped, makes for the face of the bull with the most ungovernable fury, and will not fail to fasten on the bull's nose, unless he is prevented by the animal's horns. But the breed of bull-dogs is not so numerous, nor yet so nicely attended to, as formerly, and perhaps, at no distant period, will be altogether extinct—"a consummation devoutly to be wished;" as they are calculated for no one useful purpose. Possessing, in a very high degree, the quality of courage, they are, at the same time, the worst calculated of all other dogs for the purpose of protecting the house from nocturnal depredation: except when excited to run at the bull, the bear, &c. they are very sluggish and inactive; and thieves might very probably break into a house, and even murder the family, and the bull-dog continue his repose with indifference. Further, when they make an attack, it is in silence; and were they to seize an innocent person, or a child, the most disastrous consequences, or death itself, might result: supposing the victim to be disabled from screaming, the mischief would proceed in silence, and the catastrophe take place without any person being aware of the circumstance.

BULL FIGHT. An amusement still prevalent in Spain, though much more so in former times than at present. The following description of a bull fight, as now practised in Spain, is taken from the Morning Herald, for which it was written

by a gentleman who went to Madrid for the express purpose of communicating information on Spanish affairs, and who was an eye-witness of the bull-fight which took place in that metropolis on Sunday, the 12th of January, 1823, and which he thus describes:—

From political subjects of such importance as now agitate this fine country, and the noble inhabitants of Spain, who are poor in every thing but *courage*, I scarcely know how to make a transition, with any grace, to a *bull-fight*. But a traveller has many matters placed under his observation which have no affinity with each other, and he must submit to take them as they come. My prejudice against these exhibitions was very decided, and it was some time before I could prevail upon myself to attend one of them. There is, however, no resisting example; and when, on Sunday last, (intercede for my pardon with the moral readers of the Herald,) I saw crowds of people, men, women, and boys, hastening to the amphitheatre, I could not avoid following in their train. The amphitheatre is a vast circular building, immediately beyond the precincts of the capital, about a hundred yards from the gate called La Puerta de Alcalá; it is capable of accommodating from *ten to fourteen thousand persons*; and I cannot afford a clearer idea of its structure, than by desiring you to imagine an extensive circular arena, which is defended by a high and strong wooden partition, that runs all round, and has four gates at the four points of the compass. One of these is used for the entry of the master of the games, or the director; another, for the entry of the bulls; another, for the egress of those bulls which are not killed; and the last, for affording a passage to the horses which drag out the bulls that are slain. Between the wooden boundary of the arena, and that which encloses the lower gallery for the spectators, there is an open space that runs all round, in order that, if the bulls should at any time overleap the boundary, they may be driven back again to the arena through this space, one of the gates being opened. They are thus prevented from doing injury to the spectators. The lower gallery runs all round, sloping towards the arena, and, as well as the arena, is exposed to the open air. The second gallery, which is immediately over this, is covered by the boxes; and the boxes, which are very high, are protected from the sun and sudden rain by a narrow roof of tiles, which does not project beyond

them. Fifty reals are paid for the use of a whole box, four for the second gallery, and two for the lower. At three o'clock the amphitheatre began to fill rapidly; and it was easy to perceive, from the expectation painted in the countenance of the visitors, as they came in and seated themselves, that the bull fight is a favourite amusement. It was new to a stranger to hear the members of different parties calling out to each other, in order to arrange themselves with the greatest convenience, by such names as Barbara, Margarita, Nicolassa, Maria, Herminia, Olimpia, Pedro, Innocentio, Francisco, and others of similar terminations. The women and young girls, as usual, were all in their hair, covered, the better sort with black lace veils, and those of the less affluent classes with a black silk veil, edged with lace. Most of them had also fans, which the Spanish women use not only to refresh themselves in warm weather, but to guard their eyes from the sun, who generally looks down upon this favoured land, without a cloud to impair his brilliancy.

The director, dressed in the ancient Spanish style, with a short black mantle, a hat turned up at the sides, and on the left side a plume of white and red feathers, rode into the arena upon a handsome charger shortly after three o'clock, and, after bowing to the *alcaldá*, who presided, and sat in the box on the right of the king's box, gave order for the entertainment to commence. Two horses immediately appeared in the arena, each laden with two riders, who were seated on a pad back to back. The hindmost kept his place, by holding in his left hand a cord attached to the pad, and in his right he carried a long wooden staff, pointed at the end, for the purpose of beating away the bull that was about to attack him. A bull was then let into the arena; the tips of his horns were made harmless, by being covered with lead. As soon as he saw the horsemen, he proceeded directly against one of them; and the combatants, being apparently new to the office, offering no effectual resistance, he butted his horns beneath the horse's tail, and overthrew both horse and riders. He then attacked the other with equal success; when the riders were unhorsed, the bull seemed contented with his victory, and this contest was continued for some time with alternate success, the bull, however, being most frequently the conqueror, to the great amusement of the spectators.

A military band which attended having given a flourish of trumpets, this bull retired. Two skilful horsemen, handsomely dressed in white and red silk jackets, covered with gold lace, and in white hats, with a large round leaf, and a low arched crown, entered. They carried also each a long staff, with an iron spike at the end of it. A bull was then let in, whose horns were in their natural condition; and as soon as he fixed his wild-looking eyes on the riders, he proceeded to attack one of them. These, however, being well exercised, fought him away generally; but the contest being attended with some danger both to the horse and the rider, it excited strong interest. One of them was thrown to the ground, together with the horse; but happening to be near the partition of the arena, some of the spectators stretched over the partition to his assistance, and delivered him from the rage of the ferocious animal. When the horsemen had wearied him in some degree, three or four pedestrians teased him a little in turn. They carried in one hand a scarf of yellow or red silk; and, after approaching him, they ran towards the boundary with all speed, trailing the scarf behind; and if they were in danger of being overtaken, they let the scarf fall on the ground. The bull immediately stopped, and vented all his rage upon this scarf, as if under belief that it covered his adversary, while the fugitive had time to leap over the boundary. After this, the animal being pretty well fatigued, the same pedestrians, who were also handsomely dressed, armed themselves with strong iron darts, as it was the object of each to run upon the bull with agility, and, just as he was in the act of stooping his head to toss them, to fix two of these darts, one at each side of the back of his neck. Being bearded, it was with great difficulty the animal could get rid of them, and sometimes he was seen raging round the arena, his neck bristled with these torturing instruments. At length, when he was almost exhausted, an expert performer approached the animal, holding a red mantle before him in one hand, and with the other he thrust a long sword in beneath the shoulder.

The bull now fell, and another attendant came with a knife, and, fixing it in the vital part of his head, put an end to his agonies. He was then dragged along the arena by three horses, and carried away. Two bulls were killed in this manner: the second was an immensely strong one, and he leaped after one of the at-

tendants twice over the boundary; but, from the arrangement already mentioned, he was driven into the arena again without doing any mischief. A third bull was killed in the following barbarous way: A green fir-tree was planted opposite the gate at which the bulls enter; and before this tree, a man covered with a kind of armour of oiled canvas, and having a false head of a monster with the mouth open, knelt on one knee; and a strong wooden pole, with a large flat steel point, keenly sharpened, was given to him; and, fixing one extremity of it in the ground, he sloped the point so as to meet the bull on rushing in at the gate. Being so fixed, the gate was opened, and a wild bull immediately rushed in upon him with such amazing force, that the spear penetrated completely through, and came out at the back. Still the animal was not mortally wounded; he attacked his adversary, who, pretending to be dead, permitted himself to be rolled about by the animal; and the bull, seeing the thing before him apparently shapeless and void of life, soon left it, and ran infuriated over the arena, the spear still remaining in his side, for it passed immediately under the ribs to the back. It was a shocking exhibition; but still so strong was the animal, that the attendants could not get near enough, without danger, to kill him, until, by means of a curved knife attached to a long pole, they cut the ham-strings. Even after this, he made efforts to move, but at last he fell, and his agonies were terminated. Here ended what might be called a second part.

The third part was of a more innocent, and also of a more useful character. Five or six bulls, whose horns were leaded, were let in successively into the arena, and the younger classes of the spectators crowded to emulate each other in worrying the animals. By holding their cloaks before them, or one of those gay silk or worsted scarfs which many of the Spaniards wear under the vest round the waist, they induced the bull to run after them. If he were too quick upon them, they threw down the cloak or scarf, and leaped the boundary. But frequently they could not run fast enough, and the bull threw them down. His attention being immediately drawn off to another adversary, no harm ensued. One lad, however, in endeavouring to escape, fell down; the bull was instantly upon him, and raised him aloft upon one of his horns, as if he was a fly. The lad, with great

presence of mind, finding himself riding on the horn, caught hold of the end of it, and was thus carried about the arena to the infinite amusement of the spectators; fortunately, he was tossed off again without any further injury than a rent in his trousers. In this part of the entertainment it is that the national utility, and perhaps the moral justification of these exhibitions, consists; for it serves to accustom them to danger, to render them active and dexterous, and, in some measure, to prepare them, by these mimic combats, for contests of a more important description. The whole concluded with a display of fire-works, which were upon a narrow scale. There were about five or six thousand present. I must add, that this exhibition, which I have described, was one of rather the middling order. The best shows are in summer time. But, such as it was, it was considered the best to have been given this winter. There is a similar one every Sunday that the weather permits, which does not occur very often, as the winters in Madrid are severe.

Such is the bull fight, as still practised in Spain, scarcely differing from what has been practised in that country for some centuries past.

We learn from the entertaining letters of Don Leucadio Doblado, that at Seville, about the beginning of summer, the great breeders of black cattle, generally men of rank and fortune, send an invitation to their neighbours to be present at the trial of the yearlings, in order to select those that are to be reserved for the amphitheatre. The greatest festivity prevails at these meetings. A temporary scaffolding is erected round a very large court, for the accommodation of the ladies, and the gentlemen attend on horseback in peculiar dresses adopted on this occasion.

Each of these cavaliers holds a lance twelve feet in length, headed with a three-edged steel point. This weapon is called *garrocha*, and it is used by horsemen whenever they have to contend with bulls, either in the fields or amphitheatre. The steel, however, is sheathed with two strong leather rings, which are taken off in proportion to the strength of the bull, and the sort of wound which is intended. On the present occasion, no more than half-an-inch of steel is uncovered; double that length is allowed in the amphitheatre, though the spear is not intended to kill or disable the animal, but to keep him off by the painful pressure of the steel on a superficial wound.

The company being assembled in and round the rural arena, the one year old bulls are singly let in by the herdsman.—It might be supposed that animals so young might be frightened at the approach of the horseman couching his spear before his eyes, but the Andalusian breeders expect better things from their favourites. A young bull must attack the horseman twice, bearing the point of the spear on his neck, before he is set apart for the bloody honours of the amphitheatre.—Such as flinch from the trial, are instantly thrown down by the herdsman, and prepared for the yoke on the spot.

BURROWS are the holes which rabbits make in the earth: anciently called Clapers.

BUSTARD (LITTLE), is about seventeen inches long: its plumage on the back, wings, neck, throat, and tail, is beautifully streaked, barred, and freckled with pale and dark brown; the belly and vent are white, with a few black spots.—This bird is very rare in England, though in France it is very common. Bewick observes, that “it is a very shy and cunning bird; if disturbed, it flies two or three hundred paces, not far from the ground, and then runs away much faster than any one can follow on foot. The female lays her eggs in May, to the number of three or four, of a glossy green colour; as soon as the young are hatched, she leads them about as a hen does her chickens; they begin to fly about the middle of August.

In former times, when the waste lands were in greater plenty, and more extensive, the plains and downs of England abounded with the bustard, the most magnificent of feathered game; being by far the greatest land-bird which Great Britain possessed. At present the race is diminishing very fast, if it be not altogether extinct.

The colour of the large bustard on the neck, back, and tail, is of a pale yellow or fawn colour, beautifully varied with black; the throat, belly, and thighs, are white; and from each cheek springs a tuft of white hairy feathers, like a pair of mustachios, which gives it a very singular appearance: its shape is very much like a turkey, of which it may be considered a species; its form is however lighter and taller. The weight of the cock sometimes amounts to thirty pounds, whilst that of the hen is one-third less. Bustards, though extremely swift of foot, fly so very badly, and are so long in taking wing, that it is said, they

were successfully coursed in England, when they were more plentiful, with greyhounds, being overtaken by the dogs before they could commence their flight. The female lays her eggs, which are larger than those of a turkey, of a greenish colour, spotted with brown, and never more than six in number, on the bare ground, in a hole which she scratches for the purpose; and if they are touched or soiled during her occasional absence, she immediately abandons them. The male, as well as by his size, is also distinguished from the female, by a large pouch, beginning under the tongue and reaching to the breast, capable of containing nearly a quart of water. This is useful to the female during incubation, and also to the young before they quit the nest; and it has been observed to be advantageous to the male bird itself, for, on its being attacked by birds of prey, it often discomfits its enemy by the sudden and violent discharge of water upon them.

With regard to shooting bustards, when you can find them, Colonel Hawker observes, that as these birds will occasionally suffer carts and carriages to come very near them, they have frequently been shot by using this method of approach. Inhabiting places frequented by shepherds, they may also be approached by the sportsman's carrying a hurdle to conceal his gun.

It is much to be lamented that so noble a bird should be suffered to become extinct, as we doubt not they soon will be, without an attempt being made to domesticate them. Breeding stock might readily be brought from the continent, in many parts of which they are said to abound, particularly Hungary. Neither ought the circumstance of their laying such a small number of eggs deter any one who might wish to make the attempt, as the fecundity of birds is, without one exception, increased by domestication.

BUTTONS, the excrements of a hare or rabbit.

BUYING HORSES. Having already been made acquainted with the terms, and that the nag is quiet to approach, giving him some gentle warning with your voice, you go up to him in his stall on the near side, and laying your hand on his fore-hand, you proceed from thence to examine his eyes, mouth, and countenance; still holding his head, and turning your own to the right about, you have a view of the curve of his neck, the height of his fore-hand, and the position of his shoulder and fore-

arm. Returning to his fore-hand, you descend to his legs and feet, minutely examining with your fingers every part from above, below, withinside, and without. You will not forget the virgin integrity of the knees, so much and so justly in request. So difficult is this to repair, either by nature or art, when once violated, that I am almost tempted to add to it as a fifth, to the four irrevocable thing, *tempus, juvenus, verbum dictum, et virginitas*.

Being satisfied respecting his fore train, your eye and hand will glance over his back, girthing-place, carcase and loin; thence proceeding to his hinder quarter, and the setting-on of his tail. You will judge how far he agrees in each, and every respect, with the rules of proportion. The hinder legs and feet will demand a share of attention full as minute as the fore ones, and I must once again repeat my advice, that the inside, or hollow of the hock, be not passed without due notice (as is commonly the case) since it often happens that the injuries of hard labour are most apparent in those parts. A survey of the other side of the horse concludes the stable examination.

Suffer no person belonging to the seller to be with you in the stall during your inspection, that the horse may not be rendered unquiet, either designedly, or at the mere presence of an habitual tormentor.

The examinant will by no means find so good an opportunity abroad, when the horse, according to custom, shall have been set upon his mettle, and when his own attention must inevitably be divided. The stall is also a good situation in which to judge of the temper of a horse, his condition, sound or infirm method of standing.

Your intended purchase is now led out, and so much care has been probably used, during the ceremony of bridling and combing, to arouse his natural and supply him with an addition of artificial fire, that 'ware horse' is by no means an unnecessary caution to the by-stander. He is taken to a spot of ground raised for the purpose of shewing his fore-quarters to advantage. Here you have an opportunity of making another general survey, in a good light. It is in this situation you must make a final judgment respecting that most material object, his eyes, taking care to have his head placed favourably for your inspection. The next consideration is, the condition of his legs, that he stand straight, and do not knuckle with his knees, that his joints do not tremble

(the sure indication of weakness), and that his feet are even and a just distance apart. Order him next to be walked forward in hand, placing yourself immediately behind him, that you may see how he divides his legs, whether he be straight in his hamis, and go sufficiently wide behind, and close before. Keep your position, and let him trot back (still in hand), and you will perceive whether he bend his knees, and go free from cutting or knocking, whether his feet be sound, and his joints free from stiffness, or injury from hard labour.

After these preliminaries, you may permit the jockey in waiting to mount, who ought to exhibit a fair specimen in every pace, walk, trot, canter, and gallop; you having placed yourself in the interim about mid way of his intended course, forward and back again; in which advantageous situation, you may command a view of the horse, his figure and action, in all directions. In this part of the shew, the particulars to be noted chiefly, are, how the horse carries his head, the degree of freedom he possesses in his shoulders, whether he goes well above his ground, and safe; whether his haunches follow well, and without over-reaching, and whether he submits to the touch of the spur without sucking in his wind, and swelling, which is a sure indication of a rebellious disposition, and that he obeys with reluctance. At the concluding scene, the nag is brought back to that elevated spot just mentioned, when you take another cursory view of him, and he returns to his stable.

But I would advise no person, however accustomed to horses, to purchase one for his own use, without previously riding him a *trial* himself; a privilege which no dealer of credit refuses, to the extent of two or three miles upon the road, in company with himself or servant. It is undoubtedly the way to know all that can be well known of an animal, in so short an acquaintance, first to see him ridden, and then to ride him yourself. You will be enabled to determine, how far his merit is to be attributed to the skill or spurs of the jockey, how far his condition and wind are to be depended upon, and whether he has been merely pampered for sale; whether his carriage be adroit, careful, and safe, over rough ways; whether he be naturally shy or skittish, or has taken aversion to particular objects; and whether he trot down hill in a firm and compact way, naturally throwing his weight upon

his haunches, and bearing light on the hand, or whether he lean forward, as desirous of using his nose as a fifth leg. This last is a consideration never to be overlooked. A hack that will not go well down hill, may fairly be pronounced good for nothing, were it only because such good qualification is generally the consequence of being well-shaped, and the backward position of the shoulder, and the inclination forward of the haunches, favouring the attitude most proper for descent. Last of all, there may be something highly disagreeable in the motions or carriage of a horse, which a person can by no other means discover, than by actually riding him; and I have frequently heard men of consummate judgment acknowledge themselves much deceived by trusting entirely to shew.

In the trial of a horse, however, I would much rather ride him a few miles on the road, without the company of either the seller or his servant; and for the following reason:—A restive horse will frequently go quietly enough in company, and proceed without the least hesitation; whereas, if taken along the road alone, and particularly when ridden by a stranger, he will not fail to shew his tricks.—Shy or timid horses pass strange objects much better in company than when ridden alone.

The best mode of forming an opinion of the eye or sight of a horse, is to stop him just as he is coming out of the stable. He should be so placed, that his head appears on the outside the door-place, just sufficient to enable the light to fall softly on the eye, a situation of all others the best calculated to detect any defect or injury of the eyes.

The bargain for a horse is either attended with the WARRANTY of “sound,” free from vice or blemish, “and quiet to ride or draw,” or he is sold without warrant, to be taken with all faults; in which latter case, the buyer can have no right or pretence to return him, except he prove glandered, which exception I suppose arises from the illegality of selling any horse in that state.

SOUNDNESS, not diseased, lame, blind, or broken-winded: nor having, at the time of sale, any impending cause thereof. By custom, three days’ trial are allowed the purchaser, within which period the horse ought to be returned for unsoundness: but if the defect lie hid, and the horse can be proved to have been unsound at the time of sale, a much longer detention

does not bar the return of the horse; on the other hand, if the seller can prove the soundness, it is presumed the horse has been damaged while in the custody of the purchaser, who in such case must sustain the loss. In cases of this nature, as well as all others, justice must depend on the last resort, upon the judgment and integrity of the evidence.

The impending causes of unsoundness are various; such as rottenness, defects in the eyes and wind; splents, and spavins. The trial of a horse's soundness ought to be committed to a person accustomed to horses. Our judgment, as to the goodness of the wind, is now universally guided by the soundness of the cough; but, independent of that criterion, the preternatural heaving of the flanks in a broken-winded horse, will always be sufficiently apparent, if he be put upon a swift pace. It is necessary to try the new purchase in all paces, and even to ride him fairly a considerable number of miles, in order to discover any latent defect, or lameness of the sinews, which may have been patched up with bandage and astringents, for the express purpose of sale.

BUZZARD. This large and well-known bird is of a sedentary and indolent disposition: it will continue for hours upon a tree or eminence, whence it darts upon such prey as comes within its reach. It feeds on birds, small quadrupeds, reptiles, and insects. It is extremely injurious to young game, and therefore keepers should be careful to destroy the insidious thief. It is not easy to be approached within gun-shot, but may be easily caught in almost any trap, baited with almost any kind of flesh or a small bird. They are easily caught with a young rabbit for a bait, if the place where he perches be found, for he keeps his haunt regularly.—A roach is also a good bait for the buzzard. Another way to take him is with a middle-sized square steel trap, baited with fresh bullock's lights; the jaws of the trap must be lightly covered with moss, and wild or tame pigeon's feathers scattered round; the trap must be pegged down. They deposit their eggs frequently in the old nest of a crow, and are easily destroyed during the breeding season.

BUZZARD, ch. bred by Mr. Bullock, in 1787, by Woodpecker, out of Miss-fortune. In 1789, at Newmarket, Oct. 31, 2 years old, Buzzard beat Mr. Fox's

Hope, 8 years, by Florizel, T. Y. C. 50gs. Nov. 2nd, he beat Mr. Dawson's Sulky, 3 years, by Garrick, out of Sportsmistress, T. Y. C. 50gs. At the Craven Meeting, 1790, he beat Mr. Vernon's Trial, T. Y. C. 100gs.: May 10, received 50gs. from Mr. Windham's Gallipot; Nov. 13th, beat Mr. Pantan's Ostrich, 8st. 10lb. each M. M. 200gs.; same day, Mr. Vernon's Crazy, A. F. 200 guineas. In 1791, at the Craven Meeting, Mr. Pantan's Ostrich, 8st. 2lb. each, A. F. 250gs. At the first spring meeting, the Duke of York's Glaucus, R. M. 200gs.; at the second spring meeting, received 120gs. from Lord Derby's Prince Le Boo, A. F.; at the July meeting, Mr. Pantan's Griffin, 8st. each, R. M. 300gs.; and, in August, two £50 at Chesterfield. In 1792, 5 years old, 200, 100, 100gs., £50, 100, 200, 37 and a half, 200, 100, 50gs. at Newmarket. In 1793, the Craven stakes, 200, 200, 80, 100, and 60gs. at Newmarket. In 1794, the Craven stakes, 50gs., the Jockey Club plate, 200gs. £50, and 100gs. at Newmarket. He afterwards covered at 10gs. and 10s. 6d. the groom, at Newmarket, and two seasons in Yorkshire, on the same terms. Buzzard was sire of Quiz, (out of Miss West) winner of the St. Leger in 1801, and of Bronze, (out of an Alexander mare) of the Oaks in 1806; also, of Brainworm, Bustard, Castrel, Deceiver, Piccadilly, Rubens, Selim, Augusta, Blowling, December, Eryx's dam, Fanny, Hornby Lass, Little Peggy, Merry Maid, Pantina, Ralphina, Ringtail, Rosamond, Sophia, Tooe, Vanity, &c. &c. This capital racer and stallion left England late in 1804, and died in Kentucky, 1811, aged 24.

BYERLY TURK, THE, was Captain Byerly's charger in Ireland, in 1689.—He was sire of the Duke of Kingston's Sprite; the Duke of Rutland's Black Hearty, and Archer; the Duke of Devonshire's Basto; Lord Bristol's Grasshopper; Halloway's Jig; and Knightley's mare.

BYWELL TOM, ch. (afterwards called LIGHTNING,) the property of Mr. Fenwick, foaled in 1747, was got by Cade, dam by Partner, grandam by Woodcock; great grandam by Croft's Bay Barb—Makeless—Brimmer—Dickie Peirson—Burton Barb mare. Bywell Tom won £1000 in £50 plates: he served mares in Shropshire and Staffordshire at 2gs.

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CADE, a bay horse, foaled in 1734. Bred by, and the property of, the Earl of Godolphin. Cade was got by his lordship's Arabian, out of Roxana, the dam by Roundhead and Lath. At Newmarket, in October, 1740, Cade won the King's plate, beating, at two heats, Mr. Martindale's Sedbury, Sir Michael Newton's Elephant, and the Duke of Devonshire's Blacksilver. Cade started at Newmarket in April, 1741, when he was beat by Sedbury. He only ran three or four times, and proved unsuccessful. Cade was sold to Mr. Thomas Meredith of Eastby, Yorkshire, where he became a favourite stallion, and was sire of Match'em, Changeling, Young Cade, and a great number of celebrated racers, stallions, and brood-mares, as will be found in the various pedigrees. Cade died at Eastby, in September, 1756, aged 22. He covered in the spring of that year at 10gs.

CADENCE, is an equal measure or proportion, observed by a horse in all his motions, when he is thoroughly maneged, and works justly at gallop, *terra a terra*, and the airs : so that his times or motions have an equal regard to one another : that one does not embrace or take in more ground than another, and that the horse observes the ground regularly,

Horsemen say, "This horse works always upon the same cadence ; he follows the cadence ; he does not change his cadence ; he remains equally between the two heels.—He is gentle in all his aids ; and when put to the manege, he never interrupts his cadence.—This horse has so fine a mouth, and works with so much liberty in his shoulders and haunches, that he keeps his cadence with great facility : nay, he takes a very good cadence upon his airs, without stepping false, without jumbling, and works equally in both hands."

CÆCUM, the **BLIND GUT** ; so called from its being open at one end only ; called also *monomachon*, and *monocolon*. This intestine, which is about three fingers breadth long, is hid by the last convolution of the ilium. It hath the same bands as the colon, which bands take their origin from the *appendicula vermiformis*. Its diameter is more than double that of the small intestines.

CALCULUS ; the disease called the **STONE**. By the *stone*, is understood a calculous concretion of the kidneys, or in

the urinary bladder, which is too large to pass.

Dr. WITHERS, of Newbury, communicated to the Medical Society of London, the following curious facts respecting intestinal concretions in horses.

"Many years ago," says he, "I gave the late Dr. W. Hunter a large intestinal stone of a horse which proved fatal to the animal ; and some years afterwards, I saw an engraving of a section thereof in the doctor's possession. Subsequent to this period a like instance happened in this neighbourhood ; and what then seemed to me singular was, that the horses belonged to *millers*. This circumstance excited my attention, and from enquiry I found that their horses were more liable to this disease ; which observation I have long noticed to my medical friends. Their food, I am informed, is chiefly composed of bran and split beans, the mucilaginous part whereof is a favourable medium for associating the strong particles abraded in trituration. Another circumstance may also contribute towards the generating these concretions ; their horses are generally watered at a river, and for the most part below the mill. This water being in constant agitation by the rapidity of the stream necessary for turning the wheel, must necessarily raise and keep afloat small sabulous particles, many of which must be taken into the stomach. I am the more confirmed in this opinion by conversation I have had with a friend of mine, who constantly keeps upwards of a hundred draught horses, none of which he has ever lost from this disease. His manner of feeding is to give them bran, oats, and beans, either *whole*, or split by means of a *steel-mill*. Some years since, when attending the late Mr. Andrews, miller, of Shaw, near this place, he informed me of his having a very valuable horse ill with the colic, and which he supposed would die : I told him, that if he would have the intestines examined, he would find a large stone in them, which was the cause of the horse's illness ; he laughed at the prediction, and consequently neglected the enquiry. On visiting a few days afterwards, he produced a large round stone, broken, and informed me the dogs in eating the intestines had made the discovery. Since the death of Mr. Andrews, his son has lost a valuable horse from the same cause. He tells me that

his father had reason to believe, that in his time, he lost two more valuable horses from the same disorder. To these instances of the loss of millers' horses I could add many others proceeding from the same cause. Mr. Andrews has, by my advice, for these several years past, changed the diet of his horses. He gives them bran, and beans not *split*, with a certain proportion of chaff; he supposes the beans to contain the greatest proportion of stony particles, as they are ground by stones softer than those which are used for grinding wheat. Since this time he has had no reason to think that any of his horses have stony concretions formed in their bowels; nor such appearances in their fæces, as he recollects formerly to have observed."

Dr. Withers also observes, that masses, or accumulations of a less dense texture, are sometimes found in the intestines of horses. He says: "My friend above alluded to, has informed me, that in the course of the last 30 or 40 years he and his father have lost three or four horses in consequence of obstruction in the bowels, arising from large lumps of spongy substance, which had rather the appearance of *indurated fæces* than of stone, and which, on being exposed for some time to the air, mouldered away. Some of the stones, however, alluded to in the foregoing account, were of so hard a nature as to be capable of receiving a very fine polish."

CALOMEL, is a medical article, well known by this name as the mildest preparation of mercury: it is in general use in private practice, and a certain specific for the obliteration of worms in horses, when added in proper proportions to the ingredients for purging-balls.

CANKER is a diseased, debilitated, and vitiated action of the vessels that, in a state of health, are meant for the secretion of the sensible sole of the foot. It is generally to be found among the large, heavy class of horses, and particularly in the posterior extremities, from their being in the stable constantly exposed to the unhealthy qualities of the dung and urine. It consists of a formation of a fungous nature, frequently with appearances of the fibres of roots. This diseased production will sometimes obstinately resist the effects of the most active astringents, and the discharge from the contaminating vessels is so powerful, as to corrode and assimilate almost every part with which it may hap-

pen to come in contact. The disease termed FRUSH, or THRUSH, when neglected, will become canker.

When canker is only in its infancy, every diseased portion of the foot should be removed by means of the *drawing knife*, or other instrument. The surface of the insensible sole and frog must then be accurately examined, and every part of the fungous production removed. When a corrosion of the coffin bone, or of the cartilages has taken place, exfoliation is requisite, and may be procured by the application of the actual cautery to the affected spot. The wounds may then be dressed with dossils of tow moistened in spirits of turpentine, tincture of myrrh, or compound tincture of Benzoe. A barshoe will be preferable; and the cavity between the foot and the shoe should be so completely filled with tow, or other soft substance, as to produce a firm degree of pressure on the diseased parts. By the assistance of narrow plates of thin iron, applied across each other, having their ends within the shoe, this dressing will be properly retained: where the case will not admit of a shoe, the operator will find no difficulty in substituting some other method.—In about four days, the dressing may be removed, and another applied, composed of honey and burnt alum, which may be repeated every two days. Attention should be paid that the animal is so situated as to prevent, as much as possible, the admission of external moisture, and should the formation of the new substance prove of a fungous, pulpy disposition, a little powder of vitriolated copper or verdigris, may be sprinkled on its surface.

CANKER IN DOGS—See DISEASES OF DOGS.

CANTHARIDES. Spanish flies, the principal ingredient in every composition prepared for the purpose of blistering;—some of which are in the form of ointments; others, less powerful, are applied as liquids, and called liquid blisters.

CÂPARISON, is mostly used as a military term, appertaining to cavalry regiments, and applicable to the apparatus of every individual; the saddle, bridle, housings, holsters, and trappings of every description.

CAPULET, OR CAPPED HOCK.—A swelling that takes place on the posterior parts of the hocks, and sometimes on the point of the elbows of the fore legs, arising in consequence of some blows on those parts. At other times this kind of

enlargement is formed by an accumulation of water in the aponeurotic expansion of the muscles connected with the joint.

When those enlargements on the point of the hocks or elbows are very large, and taken in their recent state, they generally give way to the frequent application of strong blisters, which must be continued so as to keep up a constant discharge.—But if blisters seem to fail, after a proper and judicious management of them, then you will find that the actual cautery will reduce those swellings, almost effectually, in the course of four or five months, if the operation of firing has been performed with dexterity and judgment.

CARIES, OR ULCERATED BONE, is a disorder of the bones exactly of the same nature with a sphacelus, or gangrene of the fleshy parts. It is therefore necessary to examine strictly all circumstances, in order to discover if possible what has been the causes that have destroyed the circulation, in the whole or part of the bone: to be able to succeed, we must endeavour to find out whether it proceed from the acrid matter of an ulcer penetrating and destroying the periosteum and the bone; or a violent blow on the bone itself; it is also of great importance to discover whether the cause be general or topical, as in the case of canker in the foot, which often takes place without a manifest cause: except, however, in case of bad greasy heels, and running thrushes, in which cases, horses of this kind often shew a natural propensity for the disorders to run into the foot, and to destroy the bones confined within the hoof.

When a carious bone is deeply situated under the flesh: this part is soft, flaccid, fungous, inflated and tumid; the lips of the ulcer inverted, the sanies clear, subtle, fæted, and black; nor can the ulcer be cured, at least only superficially, and it soon breaks out again.

In this case an opening must be made in the skin, and through the muscles, sufficiently large to reach the diseased bone: if the opening has been made too small, the matter will be detained, and will form sinuous ulcers, or it will be absorbed into the circulation; in either case we must have recourse to the knife again; and taking care this time to make a sufficient opening to allow all the pieces of bones to come out, without which no cure can ever be expected.

But in order to obtain a quick exfoliation of all the rotten pieces of bone, the application of the actual cautery to the

diseased bones will be necessary: and to assist the discharge of matter and rotten bone, let the whole of the carious parts be washed with spirits of turpentine, or oil of cloves, or spirits of wine, or brandy and vinegar; and at night a tent of tow dipped in any of the spirits mentioned, and powder of euphorbium. The actual cautery may be renewed as often as necessity requires, without the least fear of doing any injury; which, on the contrary, is the only remedy to be applied; it will remove safely and speedily all the dead or decayed parts of the bone.

CARMINATIVES, are all such warm aromatic seeds or medicines as expel wind, amongst which may be justly ranked most of the spices; likewise aniseed, caraways, cardamoms, ginger, grains of paradise, &c. They are excellent aids in the flatulent disorders of horses; but should not, if possible, have been too long in the shop, as some of them lose their property by long keeping.

CARP are esteemed one of the richest fresh water fish we have in the kingdom: they are the principal stock of park canals and manor ponds, to the owners of which they afford considerable profit; particularly near populous cities, where they can be disposed of to advantage at the season when such ponds are drawn, and new stocked with stores. Much success depends upon the nature of the soil where the pond is situate: if in a soft marley kind of earth, or warm clay, impregnated with hazel earth, and a muddy bottom, they thrive beyond expectation; but, upon a dead, black, moory gravel, or a flinty, chalky bottom, they are steril beyond description, in both growth and propagation. They are a fish so exceedingly shy, (or so exceedingly cunning,) that they afford very little success to the angler, who ought to be one of the most patient adventurers that ever embarked in sporting speculation. They are but little found in running streams or rivers, notwithstanding very large quantities of small store are constantly thrown in from the reservoirs and breeding ponds of gentlemen living in the vicinity of such rivers, not more to get rid of their own superflux, than to promote a friendly supply for the accommodation of their neighbours. In large ponds, well stocked, the poachers are never deficient in means of procuring themselves a share; this they effect by forming a paste of crumbled bread, flour, and treacle, to which they add some of the *coccus indicus* (an Indian berry) in

powder: this being well incorporated, and thrown into the pond in various parts, about the size of common baits, in the latter part of the evening, the fish will be found at daylight in the morning floating upon the surface in a state of stupefaction, when they are taken out close to the bank without the least difficulty.

CASTING. A term used for the throwing down and overpowering a horse, so as conveniently and safely to perform any painful operation upon him. The way to do this is to bring him upon some even ground that is smooth and soft, or into a barn, upon soft straw; then take a long rope, double it, and cast a knot a yard from the bow; put the bow about his neck, and the double rope betwixt his fore-legs, about his hinder pasterns, and under his fetlocks; when you have done this, slip the ends of the rope underneath the bow of his neck, and draw them quick, and they will overthrow him; then make the ends fast, and hold down his head, under which you must always be sure to have plenty of straw, to prevent his beating it against the ground.

CASTING NET. In a half extended form, (when in part suspended from the ground, and resting on the leads fixed to its bottom) it resembles a bell in its shape; but when *cast* in the water, or spread on the ground, it constitutes a complete circle. They are made of different dimensions; and so constructed, as to be completely grasped by the right and left hand, having the centre of the net spread over the left shoulder; when, by a sudden exertion, (in which there must be great expertness) the net is so cast as to fall upon the water in its *utmost circular extent*; where sinking with all possible expedition, by the weight of the lead affixed to its edges, which now reaching the bottom, incloses within it all the fish in the space so covered, and from whence no one can escape. To the centre of the net is fixed a line of twelve feet long, which line, in throwing (or casting) the net, is of course extended, the extremity being previously fastened to the wrist: when the leads have reached the bottom of the water, and rest on the ground, the fish rise into the bell part of the net; then the person having the line in hand begins to draw the net gently to land.

CASTRATION. Much difference of opinion exists as to the proper time of castrating colts. In the more common sort of horses, it is probably indifferent at what time the operation is performed, and three months, if the weather be not hot,

is as good as any. But when the breed is prized, and any considerable expectations are formed on the colt, it is prudent to wait till twelve months. At this period he should be accurately examined, and, if his fore parts appear correspondent to his hinder, proceed to castrate; but if he be not sufficiently grown up before, or if his neck appear too long and thin, and his shoulders spare, he will assuredly improve by being allowed to remain entire for six or eight months longer. Young colts require little preparation; but those of more mature growth should be bled and lowered in their system.

METHOD OF CASTRATING. Having cast the horse on his left side, secure the off or upper hind leg with the flat web part of a halter. This must completely secure the leg before the hobble is removed from it; after which the leg is to be drawn forward, by means of a web collar around the neck, in the manner of the sideline, and then carefully fastened. Having every thing in readiness, grasp the scrotum firmly with the left hand, and with the right make a section towards the pending part of the bag by a neat flexion of the scalpel, through the integuments, and of sufficient length for the testicle to protrude itself through. Grasping the testicle with one hand, with the other push the scrotum back, so as to expose the spermatic cord, on which fasten the clams sufficiently tight to prevent its slipping, and then dissect or cut away the testicle, leaving a small portion of the cord without the clams for searing. To this end of the cord, while held by the clams, apply the firing iron, sufficiently hot to produce an eschar that will stop the bleeding, but not, as is frequently done, so hot as to burn it to a cinder. Having finished this, proceed to make another section, and to remove the other in the same way. Dress the parts after the operation with mild spirits, or the common tinctures, which may be done or not at pleasure. In colts, no dressing at all is required, nor any kind of bandage; neither is any bandage desirable in more adult horses, as it is apt to get stiff, and become difficult to remove.

In this operation the principal cautions requisite are, first, the necessary force required to hold the clams, without wounding or materially bruising the cord: if it be held very tightly, more inflammation often follows than we could wish; and even the portion of cord held, sometimes sloughs off. If it be not held sufficiently tight, still greater evils may ensue; which

are, the escape of the cord into the cavity of the belly before searing, and an alarming hæmorrhage.

CATARACT, is an opacity of the crystalline lens, or its capsula, occasioning a loss of sight, by the rays of light being prevented from passing to the retina.—Cataract very seldom takes place without a previous inflammation of the transparent cornea and conjunctiva; but this is not the case in the human subject, for they have cataracts formed without any appearance of a previous ophthalmia, and their cornea may inflame without producing cataract. The pupil, at the beginning of this disease, is very much affected, and there is some lymph at the edge of the iris; sometimes the lens escapes from its capsula through the pupil, and comes in contact with the cornea; at other times it rolls about the eye, and produces absorption of the vitreous humour, choroid, iris, and, in short, of all the globe, in consequence of the lens being thickened, and sometimes bony.

In the human subject an operation is performed for extracting the cataract, which is generally successful in giving a little sight to the patient; but in horses it is of no service, because the important functions of the lens must be supplied by two different sorts of glasses; one convex, to see near objects; another concave, to see distant ones. Now the impossibility of employing glasses with advantage to the horse, and without them vision is so confused, for want of the lens, that it is much better to have the animal quite blind; for he would be so continually stumbling and starting at every object, that he would be of very little value to the owner. The only advantage of extracting cataract to a horse, would be when the animal is turned to grass; such as brood mares, for instance. In this case, the operation should always be attempted; I say attempted, because the operation of extracting cataract in horses is extremely difficult to perform, on account of the retractor muscle drawing the eye into the orbit; so much so, that we cannot get at the cornea without a proper instrument: besides, this part is much less convex than the cornea of the human subject; which also adds to our disadvantages.

When the operation is performed, the action of the retracting muscle must be contracted by means of double tenaculum, which is much better than any spiculum we can use. Another difficulty arising after the operation is performed, is, that the retractor muscle still continues to

draw the globe into the orbit, and the aqueous humour is continually escaping, and thereby preventing the union of the divided cornea, which, from the irritation produced, inflames, so does the iris, and all the other parts, and the bulk of the eye is very considerably diminished. I have observed that it sometimes happens that the iris gets between the divided parts of the cornea, and prevents the escape of the aqueous humour; in this case the wound heals, and the operation succeeds. On this advantage, therefore, I recommend the operator to proceed in the following manner, viz. in cutting the cornea, instead of dividing it altogether, we must take the greatest care to leave a slip undivided, by which we are enabled to withdraw our knife with greater safety.

The same method must be attended to when the cataract is depressed, because the only difference in the two operations is, that in the one the lens is completely extracted out of the eye, and by depressing it, is sunk into the bottom of the orbit only.

Either of these operations may be performed when the lens is very white, and of a disagreeable colour and appearance; or, in case of a collection of lymph behind the lens, and the vitreous humour diseased.

CATARRH, or COLD. This is a disease extremely frequent to horses, and popularly known by the name of cold.—But as we have many examples of catarrh having terminated fatally, from having been neglected at first, or perhaps its symptoms having been mistaken for the strangles, or with some affections which are very different from one another, it will then become necessary to point out the most characteristic signs of a cold.

This disease generally begins with some difficulty of breathing through the nose, and with a sense of some fulness stopping up that passage, attended with the distillation of a thin fluid from the nose, and sometimes from the eyes; and these fluids are often found to be somewhat acrid, both by their taste, and by their fretting the parts over which they pass. Sometimes cold shiverings, and the animal is more sensible than usual to the coldness of the atmosphere; and, with all this, the pulse is more frequent than ordinary.—The difficulty of breathing is evident by a sense of tightness in the flanks, with a cough, which seems to arise from some irritation at the glottis. This cough is generally, at first, dry and painful. With

all these symptoms the appetite is impaired; some thirst arises in consequence of the fever, which is generally more or less high. These symptoms mark the height and violence of the disease; but commonly it does not continue long. By degrees, the cough becomes attended with more copious excretion of mucus, which is at first thin, but gradually becoming thicker, is brought up with less frequent and less laborious coughing; the febrile symptoms abating, the running at the nose becomes again less, till at length they cease altogether.

Such is the general course of this disease, neither tedious nor dangerous; but such a favourable termination is, sometimes, in both respects, otherwise. If the horse has been put to work, or the body exposed to fresh cold, the disease, which seemed to be yielding, is often brought back with three times greater violence than before, and is rendered not only more tedious than otherwise it would be, but also more dangerous, by the supervening of other diseases, which often passes into inflammation of the lungs, a disease in horses attended with the utmost danger.

In horses of a phthisical or broken-winded disposition, a cold may produce tubercles in the lungs, and in horses that have tubercles already formed in the lungs, it may occasion the inflammation of these tubercles, and will, consequently, render the horse completely broken-winded.

CURE. In the case of a moderate disease, it is commonly sufficient to avoid cold, and keep the animal at rest for some days, upon warm mashies of scalded oats and bran, with plenty of water-gruel for his drink, made warm; clysters are also very useful. But in some cases, where the fever and cough become very high, the head as well as the body should be well clothed: we must take away more or less blood, according to the violence of the symptoms. If there is a great difficulty of breathing, a blister is to be applied to the throat and windpipe, from the jaw-bone to the insertion of the chest. At the same time we must give the following balls, viz. Take tartarized antimony, nine drachms; calomel, two drs.; sulphur, three ounces; opium, three drs.; treacle, sufficient quantity to form the mass; to be divided into six balls, one of which must be given every morning or evening. A considerable advantage will be derived from the use of these balls, which must be continued as long as they seem to be required.

CATHARTICS. Synonymous with Purgatives.

CAUSTICS—are medicines which externally constitute a destruction of the texture (or superficies) of the parts to which they are applied. Caustics are of different kinds, and of various powers, according to the reduction, or extirpation, for which they are intended. The actual cautery, or red-hot iron, is used in firing, as well as for the farther prevention of sand-cracks already broke out. The antimonial caustic, or butter of antimony, (in judicious hands), is a complete and perfect cure for *poll evil*, *fistula*, *quittor*, and *canker in the foot*. Lunar caustic is an admirable counteraction of warts, and fast-shooting fungus. Red precipitate is an excellent substitute, when so much strength is not required; few wounds in horses can be brought to a favourable state of cicatrization without it.

CAVISON. The use that is now made of it is to securely hold colts, or stiff untractable horses; formerly, they made use of it, to bend and confine the horse's head, in situations very unnatural and painful; but as this old system is laid aside, and a much better one adopted, I need only explain the modern cavison.

It consists of an iron nose-band, having a joint in the centre, and loop, or eye, to buckle the rein to; the edges of the band on each side this centre-joint, which fixes on the nose, is turned in and jagged to operate severely, as the horse makes resistance; two other joints, one on either side, from which joints the iron part is continued smooth and flat, from three to four or five inches, agreeable to the size of the cavison. At the end of which, there are eyes for the fixing a leather strap to the near-side, and a buckle to the off-side, which buckles under the jaw; two other loops, or eyes, are made in the iron strap close to the joint for fixing the head-stall to. The head-stall, fixed as above, is made to take in or let out with a buckle and front, like unto a bridle. The throat-strap must be fixed at that part of the head-stall, on each side, that comes nearest the eye, that when buckled tight under the jaw will prevent the head-stall chafing the eye by the play, which the cavison must unavoidably have. A rein or rope, about fifteen feet long, and sufficiently strong, fastens by a stout buckle and billet to the loop in the nose-band.

CHACE. A chace is, in general acceptance, considered a receptacle for game, interspersed with *fern*, *thickets*,

underwood, and probably with *small coverts*, for its preservation. It is understood to be superior to a park, but inferior to a forest, having none of those laws for its protection. It is not unfrequently the property of a subject, and is then protected by its own manorial rights and privileges. CHACES there are, also, the property of the CROWN; and those are generally regulated by the FOREST LAWS, as in the case of *Cranbourne Chase*, situate in Windsor Forest.

CHAFING, so called, is a loss of hair, and laceration of the skin, by the pad of the saddle having got too hard in the stuffing from constant use, and for want of timely circumspection. It is also frequently occasioned by the extreme heat and friction, in continuing to travel *very long stages* in the hotter months, without more frequent relief or rest to the horse. This is a very common fault, or act of indiscretion, with the commercial part of the community; who possessing rather too much of the *spirit of trade*, anxiously endeavour (in the extent of their sagacity) to do much more, in less time, than nature ever intended, by *humanely* travelling a horse *two stages* instead of *one*, thereby saving most arithmetically one half the expence, upon the city principle of Old Philpot, that "a penny saved, is a penny got."

There cannot be a more prudent precaution in either sportsman or traveller, than an occasional inspection of the *stuffing* of the *saddle*, which invariably gets hard with constant use; it should sometimes be beat and softened with a stick, afterwards lightly raised in every part with the point of a packing needle, and made smooth and free from the lumps upon the surface, by which means every chance of injury will be avoided. Nothing can be productive of more anxiety than a sore back of the horse, either to the traveller on his journey, or a sportsman in the field; or any thing more mortifying, than to recollect such injury originated in the *neglect* of the *master*, and not in a fault of the horse. The backs of some well-bred and thin-skinned horses, particularly young ones, are subject to *chafing* and *warbles* upon very slight occasions; to counteract which, nothing can be better, more simple, or more easily obtained, than two or three table-spoonsful of the best white wine vinegar, bathed cold upon the part, and that so soon as the saddle is taken off, and while the pores are open.

CHALLENGE. When a hound gives tongue on being thrown into cover, he is

said to challenge. If the challenge come from an old hound, one to be depended on, the huntsman immediately cheers—"Hark! to Rattler," when the pack make to the challenging hound as fast as possible; and reynard most likely breaks cover in a few seconds or a few minutes. If the challenge be from a young hound or a babbler, the huntsman remains silent.

CHAPELET, in the manege, a couple of stirrup-leathers, mounted each of them with a stirrup, and joining at the top in a sort of leather buckle called the head of the chapelet, by which they are made fast to the pommel of the saddle, after being adjusted to the rider's length and bore. They are used both to avoid the trouble of taking up or letting down the stirrup every time that a gentleman mounts on a different horse and saddle, and to supply what is wanting in the academy saddles, which have no tirrups to them.

CHAPERON of a BIT-MOUTH, a term used only for snatch-mouths, and all others that are not cannon-mouths, signifying the end of the bit that joins to the branch just by the banquet. In snatch-mouths the chaperon is round, but in others it is oval; and the same part that in snatch and other mouths is called chaperon is in cannon-mouths called froncean.

CHARBON, in the manege, that little black spot or mark that remains after a large spot in the cavity of the corner tooth of a horse. About the seventh or eighth year, when the tooth becomes smooth and equal, it disappears.

CHARGE, in the old practice of farriery, a preparation of a middle nature between an ointment and a plaster, or between a plaster and a cataplasma; or participating of all three, viz. being partly made up of oils, meals, pulps; and partly of gums and resinous things, that give a stiffness and body to plasters. And therefore, as all charges are only a kind of soft or liquid plasters, the ancients, who first contrived them, made greater use of them than any other topic whatever in all outward diseases, as being the best adapted to creatures that are covered with hair.

Charges are of different intentions, as are all other forms of outward application; some being chiefly emollient, others discutient, and some repellent, of which kind are most of those called *cold* charges; some of which are also styled defensive or strengthening. Their principal use is to restore parts that are weakened by falls, bruises, or any other kind of accident.

The following is a specimen of this kind of composition:

Take of Mastic,
 Dragon's blood,
 Myrrh,
 Gum tragacanth, of each one
 ounce;
 Common pitch, six ounces;
 Bole,
 Litharge in fine powder, of
 each two ounces.

Boil all these in a sufficient quantity of vinegar over a slow fire, until they grow ropy; then take them off, and add bole ammoniac in fine powder sufficient to make a char ge.

This is described to be of great service in strains, and to abate the heat and inflammation that attend large wounds, being applied over the dressings. It is likewise used in inflammation of the eyes, being laid all over the head and temples.

A variety of other charges may be met with, under their several names, in the course of this work; but the curious reader will be gratified by consulting Gibson's Farrier's Dispensatory upon this subject.

CHASE, THE. This article is here introduced in a general sense; and we may therefore observe, that the chase is the pursuit of animals which, in a state of savage nature, constitute the principal support of human existence, but in Europe is followed as an amusement, as well as to increase the luxuries of the table. Savage man uniformly attempts to supply his wants in that way which most obviously presents itself to his view; and hence the stream or the chase is the first resort to supply the cravings of his appetite. What, therefore, arose from necessity, became at length the diversion of polished society. The snare, the bow, and the spear, were used in the primitive ages for procuring subsistence; however, the science of the chase has undergone various changes or improvements, and has arrived at that pitch of perfection, in this country at least, that very little trouble would be requisite totally to exterminate those creatures legally denominated game.

In the more early ages, hunting was, strictly speaking, the labour of the great, and was practised on a scale of grandeur unknown to modern times. Indeed, in England, those animals have been extinct for ages which afforded a dangerous pastime to princes and their vassals; and in most parts of Europe their numbers have been so thinned, that they are scarcely known, except for their nocturnal ravages on the peaceful flock. Various methods

were employed for the destruction of wild and ferocious beasts; but in the grand hunting parties, nets of immense strength and extent were used, to encircle a spot into which the animals had been previously driven, and a general slaughter ensued. But as man improved in civilization, the cultivation of the soil became an object of his particular attention; dangerous animals felt his power; their numbers decreased very much in consequence, and in some places they are altogether extinct. Eagles were formerly taught to fly at the stag; and hawks were used to pursue smaller animals, such as hares, rabbits, &c. and were ultimately taught to fly at birds. The sagacity of the setting-dog was evidently known before the introduction of the fowling-piece, the latter of which has superseded the hawk. Different kinds of hawks were employed, according to the objects of pursuit; and the late Colonel Thornton distinguished himself as a falconer, as he did, indeed, in every other department of field sports: he revived, in some degree, the almost forgotten science and amusement of falconry; and since that period hawks have been kept by several other sportsmen, who still retain them. Though hawks have not been used by the British monarch for many years, the office of Grand Falconer is still held by the Duke of St. Alban's, with a salary of £1372 per annum.

Hunting is, perhaps, one of the most fascinating amusements in the catalogue of human recreations, and, though attended with danger, even from the pursuit of the tiger down to the timid hare, is, nevertheless, calculated to inspire courage in a greater degree than any other known stimulus. Such only will perfectly understand my meaning as have experienced those feelings which responsively arise from the music of the pack.

The mode of hunting varies according to the country, or rather according to the object of pursuit. Strange accounts may be found in various historians of the manner in which savages attacked the lion and the tiger with spears, &c. which come in so questionable a shape, that they are unworthy of notice. It is very certain, that where the gun is known, it is uniformly used against the larger and more ferocious animals. Accounts are also given of hunting lions with dogs, which appear as little entitled to credit. In the East Indies, where there are some lions, and where tigers are very common, hunting parties are formed for their destruction

whenever they leave their fastnesses for the purpose of ravaging the more cultivated parts of the country; and it would appear, that on these occasions the hunters are numerous, and armed with muskets or fowling-pieces: they thus seek their object in his retreat: the chase becomes a furious encounter, the most surprising part of which is, the number of bullets the animal generally receives before it is disabled. Indeed, instances have occurred in the pursuit of the wild elephant, where, after firing a great number of musket-balls into it, recourse has been had to small swivel cannon to complete its destruction. In the common mode of taking wild elephants, decoys are used; and they became the objects of destruction only when any one of them happens to be seized with a sort of phrensy or madness (which is sometimes the case), and, leaving the herd, runs wildly into the adjacent villages, tearing up the huts of the natives, and overthrowing every thing which presents itself as an obstacle. But, independently of this sort of casual chase, the great men of the country, at certain seasons, form hunting parties on an extensive scale, in which they are completely armed, riding on trained elephants, and attended on foot by their vassals. It does not appear that horses are much (if at all) used on these occasions; the terror which generally seizes a horse, not only at the sight, but even at the smell, of a lion, tiger, &c. renders him unmanageable; and most persons in this country are already aware of the alarm which a horse manifests on passing a bear. The elephant will occasionally testify great symptoms of fear on smelling a tiger track; but he will, nevertheless, encounter the fierce animal, and often lay him prostrate with a blow of his trunk. It is true, we read of the horse being brought to combat the lion in the amphitheatre of ancient Rome, and of the former having killed the latter by a lucky stroke of his hind legs, as well as of wild horses uniting for their mutual defence; yet the fact is incontestible, that the horse, on the sight of any of the large feline animals, evinces more confidence in his speed than either in his strength or courage, and never fails, unless prevented, galloping away. If dogs are at all used in the eastern hunting parties, it is merely to kill small game, and perhaps to rouse the larger beasts. The musket and spear are opposed to the teeth and the claws of the tiger; and it frequently happens that the latter does not resign the un-

equal contest till some of his pursuers have felt the dreadful effects of his resistance.

The following will enable the reader to form a tolerable opinion of the mode of hunting in the East Indies:—

Hunting, we are told, was a favourite diversion of the celebrated conqueror, Jenghiz Khan; and the East Indian princes still manifest the same disposition for the chase as was displayed by their ancestors; and M. Blanc, who attended the hunting excursions of Asoph Ul Dowlah, vizier of the Mogul empire, and nabob of Oude, in 1785 and 1786, gives us the following account:—

The commencement of the hunting season for the party is about the beginning of December; and the diversion is enjoyed till the excessive heats in the first weeks of March occasion its termination. During this time, a circuit of between 400 and 600 miles is generally made, the hunters bending their course towards the skirts of the northern mountains, where the country is wild and uncultivated. The vizier takes along with him not only his court and seraglio, but a great part of the inhabitants of his capital also. His immediate attendants amount to about 2000; but, besides these, he is followed by 500 or 600 horse, and several battalions of regular sepoy, with their field pieces. Four or five hundred elephants are likewise included in his retinue, some of which are used for riding, others for fighting, and some for clearing the jungles and forests of the game. About as many sumpter horses, of the beautiful Arabian and Persian breeds, are taken also. A great many wheel carriages, drawn by bullocks, likewise attend, which are chiefly used for the convenience of the women; sometimes, also, he has an English chaise or two, with the addition of a chariot; but all these, as well as the horses, are merely for show, the vizier himself never using any other conveyance than an elephant, or occasionally, when fatigued or indisposed, a palanquin. The animals used in the sport are principally greyhounds, of which there may be about three hundred: he has also about two hundred hawks, and a few trained leopards, for catching deer; with many fowlers, who provide game, as none of the natives understand shooting it with small shot, or hunting with slow hounds. A vast number of matchlocks are carried along with the company, with many English pieces of various kinds; forty or fifty pair of pistols, bows and arrows, besides

swords, daggers, and sabres without number.

There are also nets of various kinds, some for quail, and others very large for fishing, which are carried upon elephants attended by fishermen, so as to be always ready for throwing into any river or lake the cavalcade may happen to approach. Every article that can at all contribute to luxury or pleasure is likewise taken under protection of the army. A great many carts are laden with water of the River Ganges, and even ice is transported for cooling the drink. The fruits of the season and fresh vegetables are daily sent to him from his gardens by bearers stationed at the distance of every ten miles; by which means each article is conveyed day or night at the rate of four miles an hour. Besides the animals already mentioned, there are fighting antelopes, buffalos, and rams in great numbers, fighting cocks, &c. To complete the magnificence or extravagance of this expedition, there is always a large bazaar or moving town which attends the camp, consisting of artificers, shop-keepers of all kinds, and dancing women; so that, upon a moderate calculation, the whole number of people in and dependant upon his camp cannot be computed at less than 20,000. The nabob, with the attending gentlemen, proceed in a regular moving court or durbar, and thus they keep conversing together, and looking for game. A great many hares, foxes, jackals, and sometimes deer, are picked up by the dogs as they pass along; the hawks are carried just before the elephants, and let fly at whatever game is sprung for them, which are generally partridges, bustards, quails, and different kinds of herons—these last affording excellent sport with the falcons or sharp-winged hawks. Wild boars are sometimes started, and either shot, or run down by the dogs and horsemen. Hunting the tiger, however, is looked upon as the principal diversion; and the discovery of one of these animals is accounted a matter of great exultation. The covert in which the tiger is found, is commonly long grass or reeds, of such a height as frequently to reach above the elephants; and it is difficult to find him in such a place, as he steals off, if possible, or lies so close, that he cannot be roused till the elephants are upon him. He then roars, and skulks away, but is shot at as soon as he can be seen, it being generally understood, and uniformly contrived, that the nabob shall have the first shot. If the tiger be not disabled, he con-

tinues to skulk along, followed by the line of elephants, the nabob and others shooting at him as often as he can be seen, till he falls. The elephants themselves are very much alarmed at this terrible animal, and discover their apprehensions as soon as they smell him, or hear him growl, generally attempting to turn away from the place where he is. When the tiger can be traced to any particular spot, the elephants are disposed of in a circle round him; in which case he will at last make a desperate attack, springing upon the elephant that is nearest, and attempting to tear him with his teeth and claws. Some, but very few of the elephants, can be brought to attack the tiger; and this they do by curling up their trunks under their mouths, and then attempting to toss, or otherwise destroy him with their tusks, or to crush him with their feet or knees. It is considered fair and good sport to kill one tiger in a day; but it sometimes so happens that a female is found with her young, in which case two or three share the same fate.

The other objects of pursuit in these excursions are wild elephants, buffalos, and rhinoceroses. Our author was present at the hunting of a wild elephant of vast size and strength. An attempt was first made to take him alive, by surrounding him with tame elephants, while he was kept at bay by crackers and other fire-works; but he most sagaciously and courageously avoided every stratagem of this kind. Sometimes the drivers of the tame elephants got so near him, that they threw strong ropes over his head, and endeavoured to detain him by fastening them round trees; but he constantly snapped the ropes like packthreads, and made his way for the forest. Some of the strongest and most furious of the fighting elephants were then brought up to engage him; but he attacked them with such fury that they were all obliged to desist. In his struggle with one of them, he broke one of his tusks; and the broken piece, which was upwards of two inches diameter of solid ivory, flew up into the air several yards above their heads. Orders were now given to kill him, as it seemed impossible to take him alive; but even this was not accomplished without the greatest difficulty. He twice turned, and attacked the party that pursued him, and in one of these attacks struck the elephant obliquely upon which the prince rode, threw him upon his side, but then passed on without offering any farther injury. At last he fell

dead, after having received, as was supposed, little less than a thousand balls within his body.

The nature of a jungle is thus described by Colonel Forrest:—"The height of the grass (says he) struck me as particularly wonderful: I was mounted on a very fine elephant, not less than eleven feet high; the howdah or seat fastened on the animal's back must have been full two feet high, it being strapped on a very thick pad: this would give thirteen feet. Now, when standing upright, the attitude usually adopted by sportsmen when beating a jungle, in order to see better around them, my head must have been near nineteen feet above the ground; but the grass was generally three, and in some places six feet higher than my head. The stalks were full an inch and a half in diameter, and it would be almost impossible, certainly very fatiguing, to attempt to force a passage on foot through such a thicket, independent of the chance of meeting with a tiger on a sudden."

Attempts have been made by British residents in India, to introduce into that country, something like the field sports of these islands; with this view, fox hounds have been repeatedly sent over, as well as pointers and other dogs. There is plenty of winged game in India, which would afford employment for the fowling-piece; and that beautiful bird, the peacock, is found in immense numbers, in a state of nature; but shooting is a dangerous amusement in India, as the game is principally found close to the jungles, where the lurking tiger is concealed, ready to spring upon any victim which happens to come within his reach. Hog hunting is found by the British residents to be the best diversion which India affords, at least for an English appetite. There are plenty of wild hogs in this part of the world, (much smaller than the wild boar of Europe,) which the English residents pursue, not with dogs, but mounted on horseback, with a peculiar dress for the occasion, and each armed with a spear or javelin; they seek the hog in his retreat, and rouse him; he makes off as fast as he can, and is pursued by the horsemen: he who first reaches the hog, attempts to pierce him with his javelin, and passes on; a second reaches him, and does the same; and in this manner the business proceeds till the hog falls. The hog, though he endeavours to get away, is by no means a coward; for when he finds himself unable to avoid his pursuers by

flight, he turns upon them, and sometimes succeeds in desperately wounding some of the horses, though the riders seldom sustain any injury. As to the pursuit of the jackal by hounds, or any thing similar, it has never been attended with satisfaction.

India, in all probability, is the place where field sports were first adopted as an amusement by civilized society; and travelled thence through Persia and Egypt, and thus made their way into Europe, by the same route perhaps as many other arts and sciences.

The greater part of Africa has never yet emerged from its pristine ignorance and barbarism. Those parts of this little-known country, which have, in any age, manifested the intelligence of an enlightened people, are placed, as it were, between Europe and Asia; and here the chase was followed as an amusement, as it is, in fact, in most parts of the world. The princes and great men of these parts, were much attached to the chase; and even Zenobia, the accomplished Queen of Palmyra, was a distinguished huntress: her husband (Odenathus, if our memory be not treacherous,) is said to have put his own son to death for his presumption in being the first to launch his javelin in the chase, that honour being appropriated for the prince.

In Southern Africa, the chase is but little understood by the wretched inhabitants, who are with difficulty able to shelter themselves from the attacks of wild and furious animals. Vaillant, however, gives us a description of a lion hunt.

This interesting traveller met with a kraal (a sort of Hottentot village,) who were labouring under great alarm:—"A lion and lioness (says Vaillant,) had for some time taken up their abode near the horde in an impenetrable thicket. The horde had endeavoured to dislodge them, but in vain, and they still retained possession of their fortress. Every night they issued forth to attack the herd, and even the men; and, the very night before my arrival, they had carried off an ox. Full of hope and confidence in my fire arms, the chief (of the Hottentot horde) congratulated himself on my coming, and requested me to employ my weapons to deliver them from such a scourge, not doubting but I should succeed if I would make the attempt.

The lions obstinately continuing to remain in the thicket, notwithstanding all that had been done to drive them out,

gave me reason to suspect that they had young ones; and this circumstance rendered the attack a business of no usual danger.

These animals, at all times formidable, have, at such periods, a fierceness that nothing can resist. Animated by the necessity of defending and procuring food for their young, they dread no danger, and would face a whole army. It is not courage they then possess—it is raging madness.

Nevertheless, I promised to attack them the next day, and engaged, at least, to drive them away, if I could not destroy them. Considering, however, the closeness of the thicket, and the difficulty of the attack, I required, exclusively of my own people, that those of the horde should also join me. During the night we surrounded ourselves with very large fires, and discharged, from time to time, our muskets. But these precautions were unnecessary; for, the lions, having the remains of their ox to devour, did not appear, though we heard them during a great part of the night.

At break of day, the men of the horde were ready, armed with arrows and assagays, and waited nothing but my orders to proceed to the attack. Even the women and children would be of the party; less indeed to fight than to satisfy their curiosity and enjoy our victory. I heard the lions still growling in their strong hold; but the increasing light soon silenced them. The sun appeared; and the profound silence that then prevailed, was the signal for our departure.

The thicket was about two hundred paces long and sixty wide. It occupied a spot sunk lower than the adjacent ground, so that it was to be entered on a descent. The whole consisted of bushes and briars, except some mimosas which rose in the centre. These trees, could I have reached them, would have afforded me an advantageous position for the attack. On their summits, I should have been secure, and might have shot the animals at my ease; but, not knowing exactly the situation of the lair, it would have been highly imprudent in me to traverse the thicket in order to reach these trees, since I should thereby have exposed myself to the danger of being seized by the way.

Unable to attack these formidable beasts in their entrenchments, all that remained was to tempt them out of their fort; for, it was difficult, not to say im-

possible, to come at them through the briars and bushes that covered them, and my marksmen would vainly have attempted to manage, or present with any aim, when thus entangled, their long fuses. I, therefore, determined to place them and the other savages at certain distances from each other upon the eminences all round the wood, so that the lions should be unable to reach the plain, without being perceived; persuaded that in the open country, we should be the stronger party, and finally triumphant.

None of the savages daring to enter the wood, we resolved to force all the oxen of the horde into it. Accordingly, when we were at our posts, with our guns ready to fire, we drove the oxen before us, compelling them by our voices and blows to enter the thicket. At the same time, my dogs opened, and I fired off several pistols to frighten the lions and make them come out.

The oxen, scenting their enemies, soon rushed back with affright, and returned towards us; but our cries, the barking of the dogs, and the report of our arms, compelled them to re-enter the thicket, which they did in a sort of fury, jostling one another and bellowing in a fearful manner.

The lions, on their side, were roused at the sight of danger, and their rage vented itself in dreadful roars. We heard them in every part of the thicket, without their daring to shew themselves any where or advance upon us. The conflict of two armies could not be more loud than their threatening voices, confounded with the cries of men and dogs, and the furious lowing of the oxen. This hideous concert continued great part of the morning, and we began to despair of the success of our enterprise, when I suddenly heard, on the side opposite to me, piercing cries, instantly followed by the report of a gun, which made me tremble. But shouts of joy immediately succeeded; and, passing from one to another along the circle till they came to me, announced a victory.—I ran to the place, and found the lioness expiring. Klaas, who was stationed at that post, had fired and shot her through the body. Her dugs, though without milk, were swelled and pendent, which indicated that she had young ones, and proved that I had not been mistaken in my conjecture.

It came into my head to employ her carcase to entice them out of the thicket. With this view, I ordered it to be drawn

to a certain distance, not doubting but the young ones would come in quest of their dam, and that the male would probably follow, either to avenge or defend them.

I collected at my new post, some of my hunters from right and left, and we retired to the distance of thirty paces from the carcase, ready to fire if the animals advanced. But my stratagem was unsuccessful, and we spent several hours watching for them in vain.

The whelps, indeed, uneasy at not seeing their mother, ran about the thicket, growling on all sides. The male too, on being separated from her, redoubled his roarings and his rage. We saw him for a moment appear at the edge of the thicket, his eyes sparkling, his mane erect, and lashing his sides with his tail. But, unfortunately, he was out of shot of my carbine; and, one of my marksmen, who was posted nearer, fired and missed him. At this he retired; and whether he feared to attack so numerous a body of men, or was unwilling to leave his young, or had received some slight wound, he appeared no more. Though animals of this species, as I have before observed, are more fierce and intrepid when they have young, than at any other period, yet the males are not so much so as the females—a fact well known to the savages.

After waiting for a long time to no purpose, and despairing of the success of my stratagem, I resolved to return to my former plan of attack. In consequence, I sent all the people to their posts, and we again attempted to drive the oxen into the thicket, in order to dislodge the remainder of the family. But they were too much frightened. They all refused to proceed, and I was obliged to give up the design; though my dogs, animated by the blood of the lioness, which they had scented, opened with great ardour, and shewed much eagerness for the sport.

We had spent a considerable part of the day in the chase; the sun was declining, and it would become more dangerous. I deemed it prudent, therefore, to think of retreating, and to defer our final victory till the next day.

The savages conveyed the lioness to the kraal, for the purpose of feasting on her; but, as I was desirous of her skin, I directed this to be first taken off. She was four feet eight inches high to the top of the shoulder; and eleven feet four inches long, from the point of the nose to the extremity of the tail.

When the animal was flayed, Klaas

very naturally threw the skin over his shoulders, to carry it to the kraal, whither he was accompanied by the shouts of all the horde.

The chief requested me to accept four sheep and a couple of oxen in the name of the horde, as a testimony of its gratitude. The sheep I immediately killed, to add to the entertainment which the lioness was to furnish; but the two oxen I gave up to Klaas, who, in fact, had well earned them. At first he refused, and persisted in their being mine. But when I urged to him, that they were presented on account of the death of the lioness, and that this death was his work, he no longer hesitated to accept them.

This feast was the more agreeable, as in part it consisted of the animal which had occasioned so much destruction. I had certainly not the same desire for its flesh as the rest of the guests; yet I was induced to taste it, and found it inferior to that of the tiger.

After the repast came the amusements. The company danced and sung all night, and their revelry did not allow me a moment's repose.

During the night, I heard nothing of either the lion or the whelps; but this I ascribed to the noisy mirth of my savages; and, indeed, had all the lions in the country assembled in the thicket to roar in concert, I know not whether their voices would not have been drowned in the uproar of the feast. There was another reason, however, for this silence. The male, affrighted by the dangers he had run, availed himself of the darkness of the night, to retire with his family; and, in the morning when we returned to the chase, we found the thicket deserted.

From the first movements of my dogs, when they entered the thicket, and their manner of hunting, I perceived that we were too late. To be certain, however, I fired off a pistol a few times, hoping that the animals, if they were still there, would be roused at the report, and soon cause themselves to be heard, either by their growling, or the stir they would make in the bushes.

This preliminary having produced no signs of any thing being present, we cautiously advanced into the thicket, where we found the marks only of the spoil that had been made by this hungry family. On all sides were seen bones scattered about, or lying in heaps; and the sight of this charnel house, reminding the horde of the losses it had experi-

enced, each began to relate and lament his own.

In the mean time I employed myself in tracing the footsteps of the lion and the whelps, to judge of the bulk of the one, and the number and size of the others. Though there are instances of a lioness having three whelps at a litter, this appeared to have had but two; which I had reason to suppose were equal to my great dog Yager, who was as high as my middle, and consequently these were already formidable, and capable of doing considerable mischief.

To judge of the old lion from the print of his foot, which was one third larger than that of the lioness, he must have been of the largest size."

Hence it may easily be perceived that the science of the chase is very little understood in Southern Africa; the wretched inhabitants are, in fact, a very cowardly race; and there is probably no better criterion of the courage of any people than the mode in which they pursue the sports of the field; or rather, perhaps, their courage may be estimated precisely in the same ratio to the ardour which they evince, or the disposition which they manifest, in the chase. The poor, timid, ignorant Hottentot, is incapable of defending himself against the attacks of the formidable animals of the forest; and, though he occasionally appears in the character of a hunter, it is for the purpose of supplying the calls of hunger, rather than from a disposition for the chase; and, even on these occasions, he directs his efforts against the smaller antelopes, and such animals as never offer the least resistance.

The American Indian offers the very reverse of the picture: constitutionally bold, he is not content with merely defending himself against the ravenous wolves and other ferocious animals by which he is surrounded, but pursues them into their very retreats and fastnesses, and seldom fails to effect his purpose.

The Indian, when the American continent was discovered, followed the chase for amusement, as well as to satisfy his wants; and, as at this period, he was unacquainted with the use of fire arms, he accomplished that with the bow, which he has since found so much more easy of attainment with the rifle or the fowling-piece.

When, however, the Europeans came to settle on the American continent (and particularly in North America) there

were not wanting those who were much attached to field sports; and, they endeavoured to find an equivalent, in the varied and desultory chase of that part of the world, for the systematic sporting which they had left behind. The English in particular, who settled in America, pursued the chase with ardour; but, in a manner somewhat different from the system of their own country, owing to the nature of the scene of action, and also from a number of causes, which must always arise from what may be regarded as an infant state of society. The Americans, however, may be said to have gone on improving; and, some idea may be formed of their field sports at present from the following sketch of sporting in South Carolina.

"It may be unnecessary to tell you that the larger portion of our country is one continued forest, interspersed with water, which runs down to our rivers; there are a great number of swamps in the natural vent of our waters to the ocean; their width varies from half a mile to three; they are thick covers, and, therefore, complete shelter for all kinds of game, which are always to be found more or less in them. A day being fixed upon for a general hunt, all the sportsmen meet at a given point with the huntsman and hounds. There are few of us who keep more than ten couple; but, then, every one having some dogs, they make a very large pack when they are all collected: the sportsmen are then equally divided, one half going on one side of the swamp, and the other on the opposite side. They then arrange themselves within gun shot of each other; and, being all armed with double barrelled guns, are ready for the sport, which commences the moment the dogs and huntsman are turned in. The swamps are skirted with fine high pine barrens, which, being open, are famous shooting ground. As soon as the dogs enter, the game runs out, and are fired upon by the first sportsman they come to; they then take back to the cover, and double with the dogs in full cry. It is not unusual, in one of the largest of our swamps, to drive out in one day's hunt, deer, wolves, bears, foxes, wild cats, and a great quantity of wild turkeys, any of which the sportsman shoots as he thinks proper. We never follow *one* deer, after he has made his escape out of the swamp, unless he is wounded, for there is no running down a deer with us: there being so many, that

if the dogs were suffered to pursue far, they would soon be divided into a number of packs: but our wolf we always run down; and, as they are very strong and large, they will run from three to four and five hours. If they are not shot in the chase, they come to bay in a thick cover, and always turn their backs to a hurricane root (a tree blown up by the wind); where they will defend themselves against the largest pack, their bite being very severe. Our bears, foxes, and wild cats are soon tired, when they always take trees, from which they are shook down to the dogs. The sportsmen particularly admire that part of the diversion, the shooting at wild turkeys which fly out of the swamps while our dogs are in chase; they are very large, fly with great velocity, and are very fine eating. It is remarkable that the English gentlemen, who hunt frequently with us, shoot very badly at our game, and yet will kill the small sorts with great ease. I have known a gentleman shoot on the wing any of our fleet flying birds, without missing a shot, and yet miss five, six, and seven shots at deer and turkeys in a day. I attribute this to the agitation occasioned by the velocity with which they pass, and their not being accustomed to them. I have in one day's hunt, seen started forty deer, and ten killed, besides a number of other game. The spoils, after the hunt is over, which is at dark, are equally divided among all the sportsmen, when the huntsmen set off with their respective hounds; and all the sportsmen, with the strangers, are invited to dine at one of the sportsmen's seats, where a general dinner is always provided, and which they all alternately find."

In Europe we find that field sports have always been a ruling passion, from the earliest periods to the present time. It is true, they have varied in their form, either according to the times, or the situation of the country, or both; and are now followed in a very different manner from that which characterized them at very remote periods. Field sports may, in fact, be said to have proceeded hand in hand with the progress of civilization, or rather perhaps of cultivation; and the discovery of gunpowder and the introduction of fire arms, as they completely changed the complexion of, so also they gave to, the chase a very different character from that which had hitherto distinguished it.

The Greeks were fond of field sports, and it is clear from the account of Xenophon

(see the article HARE HUNTING) that the science of the chase was well understood by them. With the Romans the case was very different: these people were the most celebrated warriors the world ever saw; and perhaps from their being almost constantly engaged in scenes of blood, they imbibed that relish for slaughter which formed the leading feature of what might be called their field sports. Most of the nations of antiquity pursued the chase, and feasted on the fruits of it; but the delight of the Romans appears to have been to collect a great number of animals together for the purpose of wholesale or indiscriminate slaughter. Such were the spectacles exhibited in the circus, and victorious Roman generals seemed to vie with each other in the number of victims which they were able to procure for such occasions, in which the people seemed to take great delight; and from which perhaps the bull fights of Spain might be originally derived.

If we descend to more modern times, we shall find the chase in Europe, generally, a very different business from that which it forms at present, owing to causes at which we have already glanced. We will endeavour to exhibit the business in a more conspicuous light by an extract from an ancient author, which, it will be easily perceived, forms a contrast with the practise of modern times. On the subject of hunting the Wild Boar, the author in question observes:—

The boar is ever pigged with as many teeth at first as he shall have ever after, which will only increase in bigness, not in number. Amongst the rest, they have four, which are called tusches or tusks, whereof the two biggest do not hurt when he strikes, but serve only to whet the other two lowest, with which they frequently kill.

They feed upon all kinds of corn and fruit, which they can come at; also roots. In April and May they feed on the buds of palm trees, chesnut trees, and all other sweet buds they can find, especially on the buds of broom and juniper; and are never measled like our tame swine. Being near the sea-coast they will feed on all manner of shell fish.

Their season beginneth in the midst of September, &c. See the article BOAR.

Fire-arms have superseded the use of the spear; and in the modern boar hunts, the animal is fired at as often as opportunity offers. If, however, reliance is to be placed upon the accounts of the chase of

the boar, it is astonishing how long he will stand up before the hounds, as well as the number of balls which he frequently receives before he falls. See BOAR.

The chase of the boar forms a princely amusement in France, as well as in Germany and other parts of the Continent. Bear hunting is followed in the mountains of Spain, as also in other mountainous parts; while the Tyrolese evince much more than common ardour in the pursuit of the Chamois.

The Tyrolese are perhaps the most persevering hunters in the world, and seem to despise all danger in their favourite pursuit. They are such admirable marksmen that their services, as sharpshooters, in the late war, were rewarded with the temporary liberty of hunting with impunity. The value of this liberty can only be estimated by those who know the passion of the Tyrolese for the chase; a passion more violent than that of the gamester. Neither threats nor punishment can deter them from the pursuit of it. Gain is not the object, as the chamois, flesh and skin, does not sell for above ten or twelve florins; and yet a man who had been many times caught in the fact, declared, that, if he knew the next tree would be his gallows, he would nevertheless hunt. M. de Saussure records an interesting anecdote of a chamois hunter whom he knew; he was a tall well-made man, and had just married a beautiful woman:—"My grandfather (said he) lost his life in the chase and so did my father, and I am so well assured that one day or other, I shall also lose mine, that this bag, which I always carry with me in the hunt, I call my winding sheet, for I shall certainly never have any other; nevertheless, Sir, if you were to offer me a fortune immediately, on condition that I must relinquish the chase, I would not accept it." De Saussure says, that he took several excursions among the Alps with this man; his strength and agility were astonishing, but his courage, or rather his temerity, still greater than either. About two years afterwards his foot slipped on the edge of a precipice, and he met the fate which he had so calmly contemplated.

To come, however, to the field sports or hunting of our own country, we find that a passion for the chase prevailed from the earliest periods. The Saxons were much attached to the chase; but in this they appear to have been far surpassed by their Norman successors.

The Rev. Richard Warren says, that the rural amusements of our ancestors were of a far more noble and manly nature than the puny chases of modern times. The species of hunting in which they delighted was a sport that gave vigour to the frame, strength to the constitution, and nourished that martial ardour and fearless intrepidity, which, when exerted in the field of battle, generally carried off the victory. A great variety of laws were promulgated by the Anglo-Saxon monarchs to prevent any of the inferior ranks of people from trespassing on the amusements of the king and nobility, by pursuing or destroying the game. But the inordinate passion which the Anglo-Norman kings entertained for this amusement was the source of lamentable ills to their subjects; ills which survived their cause for centuries; and which are scarcely obliterated even at this remote period of time. History may have been guilty of exaggeration; but, setting aside the doubtful account of that devastation which the first Norman William is said to have caused in the southern part of Hampshire, the forest laws are a striking proof of the cruel effects which this blind infatuation produced. Some idea of the Conqueror's high enjoyment of hunting may be formed, not more from the rigorous measures he adopted to secure it from violation, than the princely donations he bestowed on those who assisted in promoting these delights. From Doomsday book, we learn that Waleran, the huntsman, possessed no less than fifteen manors in Wiltshire, eight in Dorsetshire, together with several in Hampshire; and his name occurs in the list of tenants in *capite* in other counties. The same venerable remain of antiquity records the extensive possessions of other huntsmen, who bore the names of Croc, Godwin, Willielmus, &c.

But it must be observed, that the Conqueror did not originate the Forest laws in this country, though he very much increased their severity. They were, however, sufficiently severe in the time of Canute; when the hunting or coursing a royal stag until he panted, by a *freeman*, was punished by the loss of his liberty for one year, and if he was a bondman he was outlawed.

The Conqueror, however, made the death of a beast a capital offence, for which there was no atonement but the death of the offender; while the murder of a man could be commuted for a moderate fine; and, amongst other punish-

ments for offences against these laws (which were repealed by Richard I.) were castration, loss of eyes, and cutting off hands and feet. It is somewhat singular that the son should be slain in the pursuit of deer in the very district which it is said his father had depopulated for their accommodation and increase.

But the real circumstances of the death of Rufus are involved in some obscurity, as several of our early historians say not a word of any tree being accessory to his fall: tradition, however, has even pointed out the oak against which the arrow glanced that was shot by Tyrrell; this tree, formerly standing at Canterton, near Stony Cross, a little to the north of Castle Malwood, noted also for its premature vegetation, like the Cadenham Oak, whose buds appear every year in the depth of winter, had become so decayed and mutilated, eighty years ago, that the late Lord Delaware, to preserve the remembrance of the spot, had a triangular stone erected about five feet high, with the following inscription:—

“Here stood the oak tree on which an arrow, shot by Sir Walter Tyrrell at a stag, glanced and struck King William II. surnamed Rufus, on the breast, of which he instantly died, on the 2nd day of August, in the year 1100.

“King William II. surnamed Rufus, being slain, as before related, was laid in a cart belonging to one Purkis, and drawn from hence to Winchester, and buried in the cathedral church of that city.—[Purkis’s descendants, and of the same name, lived not long ago (and may do still) close to the spot in a neat cottage, and followed the trade of their ancestor, that of a charcoal maker; and, according to the traditional report of the country, have never been rich enough to keep a *complete team*, nor poor enough to apply for *parish relief*, since the event, thus commemorated, took place.]

“Anno 1747. In order that an event so memorable might not be hereafter unknown, this stone was set up by John, Lord Delaware, who had seen the tree growing in this place.”

Two of William’s sons and one of his grandsons were, by uncommon accidents, killed within the bounds of New Forest, viz. Richard by a *pestilent air*; William Rufus by an arrow; his grandson Henry, son of Duke Robert, by hanging in a bough after the manner of Absalom.

The ardour of the great Norman lords for hunting kept pace with that of their

monarchs; and the same tyrannic severity against the unfortunate violator of the game, was exercised by these mighty hunters on their own estates, which the king practised against the trespassers on his demesnes.

“In these days (says an ancient writer) our nobility esteem the sports of hunting and hawking as the most honourable employments, the most exalted virtues; and to be continually engaged in these amusements is, in their opinion, the sum of human happiness. They prepare for a hunt with more trouble, anxiety, and cost, than they would for a battle, and follow the beasts of the forest with a greater fury than they would their enemies; by being constantly engaged in this savage sport, they contract habits of barbarity; lose, in a great measure, their feeling and humanity, and become nearly as ferocious as the beasts which they pursue. The husbandman is driven, together with his innocent flocks and herds, from his fertile fields, his meadows, and his pastures, that beasts may roam there in his stead. Should one of these potent and merciless sportsmen pass your door, place before him in a moment all the refreshment your habitation affords, or that can be purchased or borrowed in your neighbourhood, that you may not be utterly ruined, or perchance accused of treason.”

Matters have very much altered since this period as the following anecdote will shew. It is well known that the late king (George III.) was fond of stag hunting; and, on one occasion, the chase led him to ride over a gentleman’s inclosure, who happened to be walking there. The gentleman, with a commanding tone, accosted the king with—“Stop! Sir, this is not a patent path!” His majesty, not accustomed to such a mode of salutation, instantly replied with some emotion, “Do you know who you have, Sir?” “Yes (rejoined the other) I know that I have the king of Great Britain talking to me, but I am king upon my own property.” It is said, that George III. with great presence of mind, and a frankness that did honour to royalty itself, clapping his hand upon the pommel of the saddle, exclaimed with an air of exultation and pleasure, “I am the greatest king upon earth; for, while other monarchs rule over slaves, I reign over princes.”

But to return to our ancient writer.—He tells us that the fair sex caught the prevailing passion for the chase; while, as we learn from other authors, the *mitre*

deserted its functions, and the *cowl* quitted the quiet retirement of the monastery to join in the infatuating transports of the chase. It is no small matter of surprise to find the clerical character make so conspicuous a figure as it does in all rural sports during the middle ages. But it must be recollected that at this period a cloud of ignorance and barbarism having overspread the greatest part of Europe, such ranks of society as were removed by their riches or profession from the necessity of labour, could only amuse themselves with hunting, hawking, and other exercises that required but little mental exertion. Ecclesiastics, in particular, separated as they were from secular cares, had more time on their hands than any other description of people; a leisure they seem chiefly to have employed in the joys of the chase.

Walterus, Archdeacon of Canterbury, who was promoted to the see of Rochester in 1147, spent the whole of his time in hunting, utterly neglecting the high duties of his office. He lived to a very advanced age, and was, when eighty years old, as keen a sportsman as ever. Reginaldus Bryan, translated to the Bishopric of Worcester in 1352, was another episcopal Nimrod. In a manuscript epistle of this prelate, now extant, written to the Bishop of St. David's, Reginald reminds the father of a promise he had made, to send him six couple of excellent hunting dogs; the best (the mitred sportsman confesses) he had ever seen. These, he tells him, he had been in anxious expectation of every day; and he declares his heart languished for their arrival.—“Let them come then (says he) Oh! Reverend Father! without delay; let my woods re-echo with the music of their cry, and the cheerful notes of the horn; and let the walls of my palace be decorated with the trophies of the chase!” Nor were these clerical sportsmen content with consuming their leisure time in amusements of this nature; they even contrived to blend them with the functions of their office; and in the visitations and progresses which they made at particular periods through their dioceses, such numbers of hounds, horses, huntsmen, and falconers, swelled their retinue, that the religious houses in which they were pleased to quarter themselves were frequently much distressed to provide for so large a company. About the year 1200 the prior and canons of Bridlington in Yorkshire, presented a formal complaint

to Pope Innocent III. against the Archdeacon of Richmond, who, when he made his visitations, brought so many horses, hawks, and attendants with him, that the complainants declared his motley suite destroyed more provision in one hour than the whole community consumed in a long time. The Pope, in answer to the petition, dispatched a bull, directed to the Archbishops, Bishops, and Archdeacons, Deans, and Officials of York, forbidding such shameful and oppressive visits in future.

The monasteries also afforded no less notable hunters than the episcopal chair. William de Clowne, whom his biographer celebrates as the most amiable prelate that ever filled the Abbacy of St. Mary, in Leicester, numbered amongst his excellent qualities, a profound skill in the science of hunting. That his kennel might be always well supplied, he requested the king (Richard II.) to grant him a market or fair, for the sole purpose of buying and selling hounds; which request, the king, seeing he passionately desired it, complied with. This Abbot (observes his eulogist) was esteemed the most famous and knowing sportsman in the pursuit of the hare throughout the whole kingdom; insomuch that the king himself, prince Edward, his son, and most of the grandees of the realm, allowed him annual pensions, as a return for the instructions he gave them in this species of venery.

The Anglo Saxons pursued the chase on foot; and their objects of pursuit appear to have been principally the wild boar and the wolf; the Anglo Normans might be considered as more polished, more noble, and more scientific hunters: they introduced that powerful and pleasant assistant in the chase, the horse, as well as a great variety of objects of pursuit. They chased the stag, the roebuck, the fox, the hare, &c. and hunting the less dangerous animals seems to have constituted their principal amusements; though the wolf and the boar occasionally occupied their attention.

They had two modes of following field sports; one of which (that usually pursued) was the following:—The king or baron, attended by a numerous retinue, mounted his horse, and rode to the spot which had been previously marked out for the sport of the day. Here the great man and his favourites took their stations in places by which it was supposed the game would pass: the attendants separating, dispersed

themselves through the forest, and rousing the deer, endeavoured to drive them to these fatal spots. As the animals glided by, the sportsmen discharged their arrows at them; and being in the constant habit of using their weapons, they became such expert marksmen that their bows seldom twanged in vain.

Little different from the sport just described, but attended with more ceremony, was the diversion named the *Traist* or *Trista*, which is thus described:—A wide and extensive plain was sought out, surrounded entirely by a wood, which was barricaded on all sides, except certain openings in particular spots for the ingress and egress of the game. A mound or eminence was raised, if there was no natural knoll in this area, in such a situation as to command a view of the game, and give the person an opportunity of discharging his arrow at it. Here the king stood; the beasts were then driven into the area, and the dogs sent after them; and such as passed by the ambushed monarch could not of course escape the chance of being destroyed by him. Those which attempted to escape through the openings before mentioned, were torn down by the dogs, or intercepted by the attendants stationed there for the purpose.

Though the old English ladies seem to have been somewhat partial to a sport which so deeply engaged the attention of their husbands, yet they generally practised it in a style suitable to the delicacy of their sex. They rode in a chair or litter, either carried by men, or borne by a horse, and were content to watch the motions of their masculine companions rather than take an active part in the chase. Yet the ladies, prior to the time of Richard II. when they rode on horseback, did not make use of the side-saddle; but like the Italian females of the present day, (as well perhaps as other parts) they bestrode the animal in the same way as men. It was to the wife of Richard II. styled by the people “the good Queen Ann,” that the ladies are indebted for the introduction of the side-saddle.

It was some time before the horse became general in the chase; though, in Chaucer’s time, riding in the chase appears to have been the general custom.

The unfortunate John, amidst all the troubles of an inglorious reign, found frequent opportunities of indulging an extreme passion for the chase. The *fine* rolls of his reign sufficiently prove his pre-

dilection for hunting, since, by these documents, he appears to have generally taken, in lieu of those fines which accrued to him, in return for grants and seizin of estates, a variety of dogs, hawks, and horses—animals evidently calculated to indulge and gratify his ruling passion. Edward I. also may be justly enumerated among the old royal hunters of England; as appears from the several items in his wardrobe book (for the 28th year of his reign) of the expenses incurred on this account. He seems, too, to have been one of the original fox-hunters; but his pack would have made but an insignificant figure in the kennel of a modern sportsman, as twelve hounds were the amount of it, and twenty-three pounds, seven shillings, and one penny, the annual expense of keeping them.

So partial, indeed, were our forefathers to the fascinating amusement of which we are speaking, that they considered it as one of the greatest and most serious employments of their lives, and reduced the diversion of hunting to a regular science. Several treatises were written on this subject for the instruction of juvenile sportsmen; and numerous rules were laid down for the observation of those who filled the various offices in the forest, the kennel, and the stable. One of the most curious performances extant on the subject of hunting, is a manuscript written in the beginning of the fourteenth century, in Norman French, by William Twice, grand huntsman to Edward II. An ancient translation of it into English occurs among the Cottonian manuscripts.

But perhaps, after all, nothing can prove so clearly the partiality of the old English to the sport of hunting, and the eagerness with which it was pursued by every rank of people, from the highest to the lowest, as the number of popular ballads and traditional stories on this subject which have reached our times. By these we find that the excessive severity of the forest laws was insufficient to keep the yeomanry of the kingdom from a pursuit which would seem to have had a connexion with their very existence. Many of them, taking advantage of that weakness of the government and relaxed state of the laws which the feudal system naturally produced, retired into the recesses of the large forests, which, at this period, covered a considerable part of the kingdom, formed themselves into banditti, and pursued this favourite sport without restraint, levying occasional contributions on such as wan-

dered near their haunts. But of these sylvan plunderers, none make so brilliant a figure in tradition, as the famed Robin Hood and the faithful Little John. Their deeds are related in the simple measures of numerous songs, which still continue to be the favourite ditties of the vulgar—a proof that *hunting*, the burden of them all, is a subject deeply interesting to the human heart.

That the wild boar was a constant object of sport with the Saxons, and occasionally with the Anglo-Normans and old English, is not denied by any one; but it seems to be a matter of doubt with some, whether the wolf continued to be hunted in this country after the reign of Edgar, the Anglo-Saxon. Hume, citing William of Mahnesbury as his authority, asserts, that this era was marked by the extirpation of wolves from England. Our historian, however, seems to have considered the passage in Mahnesbury rather hastily. The monk does not say that Edgar actually destroyed the breed of wolves throughout his kingdom, but that he intended or thought to have done it; and in pursuance of this determination, he imposed a tribute on Llundwalls, king of Wales, of three hundred wolves' heads, to be paid to him yearly; which tribute having been sent for three years, was dropped on the fourth, Llundwalls declaring that he could find no more wolves within his realm. But surely it is not to be thence inferred, that the breed was then completely extinct in England and Wales, as there are documents which completely contradict a supposition of this nature, and convince us that the wolf was hunted in this country so lately as the fourteenth century. They are expressly mentioned as beasts of venery in the laws of Henry I. and among those who formerly held by that tenure called *petit serjeanty*, it was very customary to perform the service of hunting and destroying the wolves in different parts of the kingdom. The particular periods, therefore, when the wolf and the wild boar became extinct in this country, in all probability, cannot be accurately ascertained. At all events, wolves were noxious to the flocks in Scotland in the sixteenth century; nor were they utterly extirpated in that country till the seventeenth century, when the last wolf fell by the hand of Sir Even Cameron, of Lochail, in the Lochaber mountains, a situation, certainly, which those who have visited Lochaber will easily con-

ceive as well calculated for the fastnesses and final retreat of such ferocious animals.

The roebuck still exists in the Highlands of Scotland, particularly in that part of this rugged country which is in the neighbourhood of Loch Lomond, the property principally of the Duke of Montrose, and that accomplished Lowlander, Sir James Colquhoun.

The Highland chieftains used to hunt with the magnificence of eastern monarchs. It is recorded of Colin Campbell, (surnamed *Jongallach* or the Wonderful,) who lived about the latter end of the fourteenth century, that, on receiving a visit from the O'Neales of Ireland, he burned to the ground his house at Inverary, that he might have a pretence to treat his illustrious guests with a sight of his field equipage.

In 1528, the Earl of Athol (then on a hunting party) entertained the papal legate in a large lofty timber edifice, built suddenly for the purpose, hung with tapestry and silk, and lighted with glass windows. Gardens and ponds surrounded it; and every variety of food was found within to profusion; yet its site was a desert, twenty miles from any inhabited place. The Italian, at his departure, after having expressed his surprise at the entertainment he had received in terms too gross to be repeated, found his amazement redoubled when he saw the pompous palace he had just quitted consumed to ashes in an instant; nor did it lessen when he was told, "that it was the constant habitude of the Highlanders to set on fire in the morning the place which had lodged them the night before!"

In former times, hunting was often the cause of deadly feuds; such was the occasion of the fatal day of Chevy Chase, which, though recorded only in a ballad, may, from what we know of the manners of the times, be founded on truth; not that it was attended with all the circumstances the author of that natural, but heroic, composition, has given it; for on that day neither a Percy nor a Douglas fell: here the poet seems to have claimed his privilege, and mixed with this fray some of the events of the battle of Otterbourne.

In descriptive poetry of the earliest date, hunting is frequently alluded to; even in the most important action of the whole Iliad, the death of Hector, the pursuit of him by Achilles is thus introduced:—

"As through the forest, o'er the vale and lawn,
The well-breathed beagle drives the flying fawn,
In vain he tries the coverts of the brakes,
Or deep beneath the trembling thicket shakes,
Sure of the vapour in the tainted dews,
The certain hound his various maze pursues."

POPE.

We have already slightly noticed the hunting establishment of Edward I. From the account of the comptroller of his wardrobe, A. D. 1299 and 1300, translated at the charge of the society of antiquaries, we are furnished with the items of expense, as well as the style, of a fox-hunting establishment, something more than five hundred years since:—

	£	s.	d.
Paid to William de Foxhunte, the king's huntsman of foxes in divers forests and parks, for his own wages, and the wages of his two boys, and to care of the dogs from November 20 to the 19th of November following, for 366 days, it being leap year, to each per day two-pence . . .	9	3	0
Paid to the same, for the keep of twelve fox-dogs belonging to the king, for the same time, each dog per day a halfpenny	9	3	0
Paid to the same, the expense of a horse to carry the nets from November 20 to the last day of April, 163 days, three-pence per day	2	0	9
Paid the same, the expense of the horse from September 1, on which day the hunting season commenced after the dead season, to the 19th of November, 80 days, three-pence per day	1	0	0
Paid to William d'Blatherwyck, huntsman of the king's fox-dogs, for shoes for himself and two boys, to each of them two shillings and four-pence	0	7	0
Paid to the same for his habit during the present year . . .	0	13	4
Paid to the same for habits for his two boys, ten shillings each	1	0	0
Total	£23	7	1

If this total be multiplied by 15, there will be nearly the due allowance made for the difference in the value of money between that period and the present. Consequently, the whole of Edward's annual expense for this amusement was somewhat more than £350 : 6 : 3 of our current coin; neither was this a trivial charge, if it be considered that this part of his majesty's sporting establishment consisted of only the huntsman, two boys, twelve dogs, and one horse to carry the toils.

Queen Elizabeth was extremely fond of the chase, and very frequently indulged herself in following the hounds; for this reason, the nobility who entertained her in her different progresses made large hunting parties, which she usually joined when the weather permitted. "Her majesty (says Rowland White, in a letter to Sir Robert Sidney, dated Sept. 12, 1600) is well and excellently disposed to hunting; for every second day she is on horseback, and continues the sport long." It is to be remembered, that at this time her majesty had entered her seventy-seventh year. This exercise at so advanced a period of life is a strong proof of her fondness for the diversion. She was then at her palace at Oatlands.

The expenses annually incurred by Elizabeth, on account of hunting, were—

BUCK HOUNDS.		£	s.	d.
Master's fee—whereof to himself, per diem, twelve pence, and the rest to sundry huntsmen serving his appointment	50	0	0	
Sergeants, two, fee a-piece £20	40	0	0	
Yeomen prickers, two, fee a-piece, £9 : 2 : 6	18	5	0	
Hounds, and meat to the grooms of the buck hounds, allowances	13	6	8	
Total	£121	11	8	
HART HOUNDS.		£	s.	d.
Master's fee	13	6	8	
Sergeant's fee	11	8	1	
Officers and others, serving the said master, wages and allowances	13	6	8	
Total	£38	1	5	

HUNTING HARRIERS.		£	s.	d.
Master of the harriers' fee . .	11	6	0	

C H A

	£	s.	d.
Yeoman's fee	6	0	0
Officers and others, serving under the same master, wages and allowances . . .	79	1	8
Total	£96	7	8

OTTER HOUNDS.

	£	s.	d.
Master's fee	13	6	8

Grand Total £269 7 5

In the succeeding reign, when that poor driveller, James I. swayed the sceptre, the expenses of the hunting establishment were as follow:—

HUNTSMEN.

	£	s.	d.
To Sir Patrick Bourne, master of the privy harriers, for his fee, £120 per annum, and for keeping one footman, four horses, and twenty couple of dogs, £100 per annum	220	0	0
To Thomas Pott, master of the hunt, for his fee, four shillings per diem: for three yeomen prickers, to each two shillings per diem: for one groom, twelve-pence per diem: and for keeping twelve couple of dogs, fifty pounds per annum	250	15	0
To Robert Rayne, sergeant of the buck hounds, per annum	50	0	0
More to him, as one of the yeomen of the privy harriers, £3 per marsem	36	0	0
To Mr. Battle, another of the yeomen, the like fee	36	0	0
To Richard Barnard, another of the yeomen, the like fee	36	0	0
To Nicholas Cockeine, another of the yeomen, the like fee	36	0	0
To Richard Lazonby, master of the Lyam hounds, per annum	40	0	0
To Richard Gwynne, groom of the harriers to the prince, thirteen pence per diem, and twenty shillings per annum for his livery	20	15	5
To John Waters, yeoman of the harriers to the king, twelve pence per diem . .	18	5	0

C H A

	£	s.	d.
To Robert Walker, sergeant of the king's hounds, per annum	50	0	0
To Richard Brasse, yeoman of the king's hounds, per annum	50	0	0

Grand Total £843 15 5

At this period, it is to be presumed, the expenses of these departments were defrayed from the privy purse; but, in a subsequent reign, the stag-hounds were honoured with a new arrangement, and became a part of the regular crown establishment, having been also further favoured by increased salaries, and other local privileges, during the reign of George III. In the reign of the monarch just mentioned, the salaries were—£2000 per annum to the master; to the huntsman, exclusive of a residence at the kennel, £123; six yeomen prickers, £104 each. These find their own horses, but are annually supplied with liveries, horse-cloths, saddles, and all stable appendages. Lord Maryborough is at present master of the stag-hounds.

The masterships of both the buck-hounds and harriers were abolished; the former, when held by the Earl of Denbigh, in 1772, had a salary of £2000 a year, and the latter, at the same period, possessed by Viscount Bateman, one of £2341 per annum. There were also twelve huntsmen at £60 a year each, and six for the master of the buck-hounds, besides a master huntsman, who was allowed £100 per annum for himself and his horses. The salary attached to the mastership of the stag-hounds was, at that time, only £800 a year; and indeed the three were more in the nature of sinecures, than of a sporting establishment for actual field service. In the last reign (George IV.) the harriers were revived; but with the expenses of the establishment we are unacquainted.

The royal stag-hounds commence hunting on old Holy-rood-day, and the days for hunting are the following Tuesdays and Saturdays, until the first week in May; during the holyday weeks of Christmas and Easter, the hounds hunt the alternate days; and the two grand days of the season are those of Holy-rood and Easter Monday.

There are many hunting establishments at present in England on a much more extensive scale than that of his majesty,

and attended, in all probability, with a greater expense; and yet the most extensive sporting establishment in this country will sink very much in the comparison with those of some parts of the Continent, but which will more properly come under the head of SHOOTING, to which article we refer the reader.

With respect to a received notion among many of the citizens of London, that they have a right to hunt, hawk, and shoot, in Middlesex, &c. arising from the Charter, it must be observed, that in about seven years after King Charles II. had confirmed to the citizens all their liberties and privileges, the qualification Act was made, enacting, "that all and every person, not having," &c. (See the GAME LAWS, under the sub-head QUALIFICATION), and that, in the said Act, there is no reservation or exception in favour of the citizens of London. Indeed, there was a statute under 2 Will. and Mary, c. 8, to reverse a judgment given in the Court of King's Bench against the mayor, aldermen, &c. of London; and by that statute all the privileges which had been forfeited were re-granted and confirmed; but the privileges in question can amount to very little, since no man has a right to enter the grounds of

another against the owner's consent, without subjecting himself to an action for trespass.

On this subject Fitzstephens remarks, that the citizens of London have the liberty of hunting in Middlesex, Hertfordshire, all Chilton, and in Kent, to the waters of Grey.—Stephanides Disc. London. This account differs from the clause in the royal Charters granted to them by Henry I. which runs thus: "The citizens of London may have chases, and hunt, as well and as fully as their ancestors have had; that is to say, in the Chiltre, in Middlesex and Surrey." These exercises were not much followed by the citizens of London at the close of the sixteenth century, not for want of taste for the amusement, (says Stowe,) but for leisure to pursue it. Strype, however, so late as the reign of George I. reckons, among the modern diversions of the Londoners, "riding on horseback and hunting with my lord mayor's hounds, when the *common hunt* goes out." This common hunt of the citizens is ridiculed in an old ballad, published in D'Urfey's Pills to Purge Melancholy, vol. iv. p. 42, from which the three following stanzas are selected:—

Next once a year into Essex a hunting they go;
To see 'em pass along, O 'tis a most pretty show!
Through Cheapside and Fenchurch Street, and so to Aldgate pump,
Each man with 's spurs in 's horse's side, and his backsword cross his rump.

My lord he takes a staff in his hand to beat the bushes o'er;
I must confess it was a work he ne'er had done before.
A creature bounceth from a bush, which made them all to laugh;
My lord he cried, A hare!—a hare! but it proved an Essex calf.

And when they had done their sport, they came to London, where they dwell,
Their faces all so torn and scratched, their wives scarce knew them well;
For 'twas a very great mercy so many 'scaped alive,
For of twenty saddles carried out, they brought home again but five!

The English, from the earliest periods, have been distinguished for their attachment to the chase; and Asser, the biographer of the Great Alfred, mentions with amazement, that the king had his youngest son, Ethelward, taught to read before he made him acquainted with hunting.

An author whom we already had occasion to notice, and whose work was originally published nearly a century ago, on the subject of hunting, makes the following observations:—"Perhaps there is no greater demonstration of the degeneracy of the present age than the neglect and contempt of this manly exercise.—

Those useful hours that our fathers employed on horseback in the fields, are lost to their posterity between a stinking pair of sheets. Balls and operas, assemblies and masquerades, so exhaust the spirits of the puny creatures over night, that yawning and chocolate are the main labours and entertainments of the morning. The important affairs of barber, milliner, perfumer, and looking glass, are their employ till the call to dinner; and the bottle or gaming table demand the tedious hours that intervene before the return of the evening assignations. What wonder then, if such busy, trifling, effeminate

mortals, are heard to swear they have no notion of venturing their bodies out of doors in the cold air of the morning? I have laughed heartily to see such delicate smock-faced animals judiciously interrupting their pinches of snuff with dull jokes upon fox hunters; and they foppishly declaiming against an art they know no more of than they do of Greek. It cannot be expected they should speak well of a toil they dare not undertake; or, that the *fine things* should be fit to work out of doors that are of the tailor's creation.

But it must be confessed there are some Grecians also, some learned Rabbies who shoot out the lip and bend the brow at us *servile, unaccountable followers of dogs and horses*. But these also are full as ignorant of the subject they rail at, as the beaux or ladies. For how can a poor vapoured, splenetic pedant, in night gown and slippers, whose spirits are sunk, and eyes pored out over indexes and common places; whose youth and health have been sacrificed to a distant prospect of vain titles and dignities, to the remote expectation of puffing and coughing out the dregs of life over a velvet cushion; I say, how can such a crazy valetudinarian form a right judgment of a jovial exercise whereof he has no idea? How can *he* speak in the praise of riding over hills and mountains that hardly knows how to sit upon his horse or buckle on his spurs?

The taste of the world is clearly altered. Avarice and ambition have taken possession of the hearts of men, who by nature were qualified for more innocent pursuits: and those manly toils which laid the foundations of prowess and glory in the ancient heroes (such as Hercules, Ninus, Cyrus, Romulus, Tamerlane; William the Conqueror of England, Henry the Fourth of France, &c.) are now exchanged for sophistry and quibbling.

But there is yet a remnant, a small remnant, whose souls are superior to these sordid motives; and to these I address my service."

These observations seem rather overstrained; but they come from a thorough sportsman, of what may now be termed, the old school; and one who had perhaps too great a veneration for the customs of the age which has passed away. Hunting has much improved since his time, and while it may be justly said to give health and vigour both to the body and the mind, it spreads at the same time a general benefit around. As a memorial of attention to sportsmen, and of the hint

conveyed to the farmers of the money brought into circulation for hay, corn, &c. by popular hunts, the following letter from a Nobleman to his agent in Leicestershire, is here introduced.

St. James's, Oct. 12, 1792.

"On the 2nd inst. I returned you in a parcel by the mail the notices you sent me to sign. I hope you received them early enough to serve upon my tenants in due time, without inconvenience to yourself. I must desire that all those tenants who have shewn themselves *friends* to the several fox hunts in your neighbouring counties, viz. Lord Spencer's, Duke of Rutland's Lord Stamford's, &c. may have the offer and refusal of their farms upon easy and moderate terms; and, on the other hand, that you will take care and make very particular inquiry into the conduct of those tenants who shall have shewn a contrary disposition, by destroying foxes, or encouraging others to do so, or otherwise interrupting gentlemen's diversion, and will transmit me their names and places of abode, as it is my absolute determination that such persons shall not be treated with in future by me, upon any terms or consideration whatever. I am convinced that land owners, as well as farmers and labourers of every description, if they knew their own interest, would perceive that they owe much of their prosperity to those popular hunts, by the great influx of money that is annually brought into the country: I shall, therefore, use my utmost endeavours to induce all persons of my acquaintance to adopt similar measures; and, I am already happy to find that three gentlemen of very extensive landed property in Leicestershire, and on the borders of Northamptonshire, have positively sent, within these few days, similar directions to their stewards, which their tenants will be apprised of before they take their farms at next Lady Day. My sole object is, having the good of the community at heart, as you and all my tenants know that my sporting days have been over some time ago. You are at liberty to make my determination upon the subject as public as you shall think proper."

That the nobleman in question had taken a very just view of the subject, we have no hesitation in asserting; and, indeed, were it only for the purpose of keeping up and improving the breed of the finest horses in the world, hunting is highly to be commended, and encouraged as warmly as possible.

In concluding this highly interesting article, we have had recourse to our favourite old author, whose writings manifest much playfulness of fancy, as well as numerous indelible indications of good sense. Upon what he calls the *lawfulness* of hunting, he makes the following observations:—"Did I write with a design of increasing our society (of sportsmen) I could nick the business by granting all the objections against hunting; by admitting it to be a *brutish, barbarous, sinful waste of precious time, and a persecution of innocent creatures; contrary to the laws of God and nature.*

Were such a declaration to be found in our Bible, or maintained by a bench of orthodox divines, we should soon unstock the theatres and assemblies, and go nigh to depopulate our gaudy metropolis of its *plus-beau* inhabitants. For the *iniquity* of the thing would recommend it to practice; and any argument of its unlawfulness or impiety would render it more genteel and fashionable. 'Tis impossible to conceive what else could establish the enormities of the present age, or excite in rational creatures such desires as were unknown to our ancestors. Is there any temptation to make choice of the Lord's day for gaming, travelling, and running of races, but the ambition to excel in irreligion and profaneness? What less consideration can induce *Lord Feeble* to keep a mistress which he cannot enjoy; or inflame the heart of the *noble Damon* with lust after his neighbour's wife, when he has one of his own so much fairer and younger? For what reason doth the eloquent *Thrasso* lard his declamations with oaths and curses, were it not to demonstrate that he fears not that Being, who has positively declared *not to hold him guiltless*? And why does *Madam Haughty* make it in her articles to be married at midnight, and in a private chamber, did it not approach to the delicious sin of the forbidden fruit?

But it is not my aim to increase our numbers, to the destruction of the game, or to invite into our fraternity of hunters, men who are enemies to virtue. I shall therefore leave such reprobates to their private reflections, and not molest them in running the way after their new inventions. The word I have to say is to my wiser brethren, to satisfy their consciences in the integrity of their doings; and to fortify them with an answer to affected objections against their innocent diversions.

The destruction of ravenous beasts of prey will not be envied us by our most querulous opponents; and for taking the others I need only to mention, the large sovereignty given to Adam and the commission to Noah.

But the cavillers will observe, although it be lawful to hunt and destroy the noxious vermin, and tolerably justifiable to seat ourselves down to a dish of venison; yet is it not a barbarous and cruel diversion to persecute a poor harmless, helpless creature, over hills and mountains, two or three hours together, with a bawling, terrifying cry of dogs at his heels; which makes the fright and astonishment of the animal, a thousand times worse than death itself?

To this the author answers.—The tender hearted Christians who make this objection, should first make it evident that the irrational animals are capable of *fear*. Fear is a human passion, founded on reason, accompanied with it, subservient to it. It was given to man in order to excite his obedience to his Maker; and to put him upon thinking and devising means for his safety and deliverance in time of danger, persecution, or temptation. But to bestow this passion where it must be useless and troublesome, on a creature which has no sense of moral evil, not the least notion of league or society, no thought or precaution (as I shall shew hereafter) to devise means of defence or preservation, is utterly unworthy an all-wise and merciful Creator. Were the irrational animals capable of fear, the hare is the greatest object of our pity; and yet has God made her for destruction? There is something so delicious and attracting in her flesh, that she is the game of every carnivorous animal. 'Tis well known she has many more cruel and mortal enemies than fair hunters; enemies that spare her in no season or circumstance; and were it not for her generous foes of the kennel, she would fall a victim to a more painful and dishonourable death, and perish by inches under the wrankling jaws of kites or ravens, stoats or polecats.

Another objection.—But then it will be urged, that it would be more merciful to the harmless creatures, to take them in a trap, or to shoot them in the forms.

We hunters say the seizing a hare in so base a way is downright murder. 'Tis certainly contrary to the design of the creation; for it is very plain they were made to be hunted, and that hounds have

their beings for no other use or purpose in nature, unless to take them in that delightful manner. The former we behold most exquisitely contrived for flight, swiftness, scent and sagacity: the latter, attracted by the odorous effluvia of her feet and body, with such an impetuous eagerness, and endowed with such a particular subtlety to investigate her turns and deviations, that it is hardly a question that the two species were made for one another.

What can be a more convincing instance of God's infinite wisdom, or even of his indulgence to the sons of men, than the formation of this animal (the hare), who naturally flies from creatures she never beheld in her life, makes use of the most refined politics to escape their pursuits (though she cannot foresee whether they are the effects of love or anger,) and yet is forced to leave behind her such particles of matter as betray her flight?—Again, of how nice and curious a texture must be the innumerable pores or pipes of the dog's nostrils, which serve as so many sheaths or canals to convey the said particles to the brains of the beagles, there to animate and put into motion every limb, joint, and muscle of their bodies? How excellent was the hand that furnished these creatures with such tuneful notes to assemble their fellows and give tidings to their masters, with such an amazing art to unravel the various windings of the fugitive, with so relentless fury to pursue her to the death? If this be tyranny, who is the contriver? If this be barbarous and contrary to nature, the Lord of nature must answer for it.

But let us for the present answer for ourselves. Let us allow the objection its intended force; let us be so very generous as to grant that a hare has a full intelligence of her enemies' designs, that she has an idea of pain she never felt, a sense and terror of approaching death, and that she is able to make the same reflection we would ourselves in such a terrible juncture; I say, granting these modest postulata (and they must be granted, or taken for granted, before the objection has any weight,) I would yet ask the finest gentleman at the opera, the most timorous and tender lady of the court, if they themselves were in the circumstances of the animal they pitied, would they be willing to be surprised by bloody assassins in the dark, and to be shot dead in their beds; or, would they not rather wish the

liberty of flying and hiding for life, with a fair chance to escape their pursuers and prolong their days?

On the benefit derived from hunting, the same author remarks, that the wholesomeness of the exercise is so universally acknowledged that it is a common subject with the poets; who, though their beloved town most plentifully supplies them with matter for their satires and tools for their flatteries, yet, as often as they are inclined to embellish their writings with real praise, or descriptions of any thing beautiful or delicious, are forced to lay their scenes in the country; and though most of those who have undertaken pompously to describe the chase, are as ignorant of their subject as the philosopher who offered to instruct Alexander in the art of war, yet thus far they are all unanimously in the right, in recommending it as *the most healthy exercise in the world*.

'Tis a plain case that gentlemen of fortune and estates will not work to maintain themselves; and it is equally certain that if they will not work, they must play vigorously or die miserably. A man that eats and drinks like an Englishman, and uses no labour, renders above half his muscles useless; his joints turn like old rusty hinges, his glands and strainers are loaded and obstructed with dregs and corruption; his whole carcase becomes a bog or quagmire, and nothing but the gout or some such distemper, can be hoped for to his relief, to drain the crudities and stagnant humours, and prolong a painful, useless life. 'Tis possible, I confess, for some who have naturally strong constitutions, to relieve themselves a while by periodical bleeding, purging, blistering, vomiting, and issues, quantum sufficit (these, my honest parson calls *the exercises of the three great C's, Cities, Colleges, and Cathedrals*); but how loathsome and detestable is such artificial filthiness! How horrid is the course of driving the excrements through unnatural channels! How foggy, unwieldy, phthisicky, and helpless, are such crazy mortals when the affairs of their families, or the service of their country, demand their application! Nay, what a sluggish, stupid, splenetic, effeminate, insipid posterity may be justly expected from such rotten sources? 'Tis no wonder so many of our ancient families are extinct, or degenerated into milksops. What would be the case, if the decayed blood were not now and then recruited by a jolly, sanguine country heiress?

In past generations, in the times of the Percies, Warwicks, and Talbots, when an English nobility thought themselves not above the use of arms; when they valued themselves on personal prowess; when their principal delights were jousts and tournaments; when they strove to gain the hearts of their ladies by bravely laying their rivals on their backs; when they combatted diseases, as well as open enemies, with shield and broad-sword; when they purified their blood by toilsome marches, by lying in the camp, and sweating under heavy armour:—What feats of arms do we then read of! what personal bravery was in those times to be seen in our worthy ancestors! what hopeful, rosy, jolly branches were seen round their tables!—Such was the certain effect of manly exercise.

Every one observes that the fogs, vapours, or diseases of the body, cast a mist, bias, and poverty on the mind; that the health, strength, and soundness of the former is communicated to the latter; and, consequently, that the only fit person, both for advice and execution, is the lively sportsman. Who so likely to mount a rampart or gain an intrenchment as he whose long practice has been scaling the fortifications of the meadows and inclosures? Who so proper to manage his horse with address and intrepidity in time of action, as he whose trade and occupation are leaping over five bar gates, hedges, and stone walls?

The author continues—What pleasure can there be in riding whip and spur, after a bawling pack of dogs, says my *Lord Tapling*? What satisfaction can be felt in sweating a whole day after a twelve-penny purchase, says the *miser* and *stock-jobber*? What ambition is gratified in the conquest of a hare or the slaughter of a fox, says the *fawning courtier*? These are weighty questions; I desire them, therefore, to accept of these weighty answers. First, here is joy, without guilt or repentance. Secondly, here is a savoury dish, and a stomach to digest it, without lying or knavery. Thirdly, here is ambition indulged without envy, corruption, or servile flattery.

The pleasures of the world consist in imagination, in raising the spirits to a warm expectation; and in gratifying the desires by fruition of the object. Let any man behold with what joy and triumph the hunter returns after a successful chase!—Hearken with what transports he recounts his adventures! See the

gaiety and good nature which shine in his face and season his conversation!

I wish our morose philosophers could once be witness of the gladness I have often diffused through a whole parish by a visit with my cry! Poor fainting puss having in vain made trial of the hills and heath fields, at last ventures to expose her fortunes to the highways and villages. The pack follows with full mouth, making towers and chimneys echo with the tuneful melody. At the enchanting sound, what single soul does not forget every other call of mammon and the flesh, and (throwing down his book, his tools, or his very prayer book) run out to partake? The thresher, in his shirt and reddened fillet, hastily exposes the open barn to the pigs and poultry; the whistling ploughman drops his tune, and leaves his cattle staring at the tumult; and the tailor follows after, slipshod and hatless, with his thread over his shoulder. The schoolboy flies from the hated bellfry to the top of the town; the old women hobble out three steps beyond the door, before they think of their crutches; and even the parson of the parish (though the gravest man alive) mounts the old pacer; and if he can but keep in upon the Canterbury, is so gay and youthful as to join his halloo in chorus with the boys. Such a moment is able to bring him back from sixty to eighteen. I was lately in company of very worthy people, where we had the pleasure of a concert of music; a good hand on the violin, and a young lady sung and played on a very fine harpsichord. 'Tis the fashion for every one to commend; and the most insensible auditor, for fear of discovering his own ignorance, must seem to be in raptures. The Lady performed to admiration; one stared, another talked of angels and the spheres; a third wept, a fourth was ready to drop into a trance: at last, a very honest gentleman that sat in a musing posture, having his ears shaken with a longer and louder quiver than ordinary, looked about and gave me a nod and wink, with this ingenuous remark:—*By jingo I never heard any thing better but a cry of dogs; she draws out her note like my old Towler!* The lady herself was not unacquainted with the attraction of hunting, and (as she told me afterwards) she was more proud of this honest, sincere compliment from Towler's master, than of all the rest she received on the occasion."

That hunting is congenial to health beyond any other exercise, is an incon-

testible truth ; that it is highly conducive to longevity we have now many living instances ; but for an account of some remarkable votaries of the chase the reader

is referred to the article **SPORTSMAN**. We shall close the present article with the following very appropriate lines :—

On my little blood hack, dirt and danger defying,
To cover I rattle in hopes of a run ;
There flit my cares, as the summer dews flying,
Vanish away from the face of the sun.
Yes, the hunt are all met, and the country is famous ;
The wind in the south too, the scent should be good :
“ Come, Philip, now give us a gallop to tame us.”
“ We will if we can, Sir—‘ Hike into the wood.’ ”

Not a skirter among them, but crash they go in it ;
“ Hark ! Concubine’s speaking—yoics ! Concubine, hark !
Stand steady, don’t head him ; he’ll break in a minute ;
Tallyho ! there’s a halloo ! he’s off for the park ! ”
Now the pack in full cry, yonder lawn streaming over,
See the deer stand and gaze at the gallant array ;
Puss steals from her form at the edge of the cover,
Where pheasants keep rising and whirring away.

“ Gone away ! ”—in sad earnest, the purls are commencing—
Here a farmer and steed most promiscuously roll ;
There a Leicestershire blade, on a glutton for fencing,
Takes a bullfinch, and *breaks a buck’s* neck in a hole.
“ My lad ! pull that stake out—whoey ! gently ! ad rat it,
(While the mare’s in a fidget the man’s in a fright)
Do just stand aside, Sir, and let me come at it.”
“ Forward ! forward ! ” my boys ! he’s away to the right.

Now across a stiff country, Sir Reynard’s departing,
The virtue of some of his followers fails ;
While steeds who went off furies rampant at starting
Have soon scarce a member to wag but their tails.
Now they make for yon osiers—he’s taken the river,
See Conqueror foremost to plunge in the tide ;
Slap dash in we gallop, nor care for a shiver
Where landing is safe on the opposite side.

“ Hold hard ! ” give ’em time to make out where he went. Here
See the veterans eagerly press thro’ the throng.
Yoics ! Countess and Hesperus carrying the scent here,
Who says that these gallants cannot go along ?
For yon village he makes, but no cunning can save him ;
Now sneaks thro’ the homestead in pitiful state :
Ev’ry effort is over, *they view him ! they have him !*
“ Whoo-whoop ! ” lads, surrounded, he yields to his fate !

Tho’ the life blood of beauty with terror may curdle,
While brooding o’er risks which the sportsman must run,
Now imagine him lying in state on a hurdle,
And turns but with sighs from the trophies he’s won :
Yet when England at tyrants would level defiance,
Say, what makes her sons so undauntedly bleed ?
’Tis the chase—’tis the study of this noble science
Gives spirit, and vigour, and health to the breed.

CHEST is the part of a horse comprehended in the side view, from his withers to the bottom of his ribs near the elbow, at the upper part of the fore arm ; and is perfectly understood, when we say, "that horse is well let down, and deep in the chest." If, in addition to this, he is "round in the barrel," he may then be said to have a *good carcass*. To judge well of the chest, it is necessary to come before, and take a front view, if which is broad, and the horse stands wide and firm, it is a proof of strength ; but if narrow in the breast (alias the chest) he will not only be very likely to cut before, but to become chest-foundered, if put to any extraordinary exertions.

CHEST-FOUNDING. A debility in the shoulders, chest, and fore-quarters of a horse, seemingly less understood, and certainly less explained hitherto, than any one disorder or defect to which the horse is incident. Those who have written upon this subject, evidently *echo each other* ; as they literally and individually say, "it proceeds from hard labour, whereby the horse becomes surfeited ; so that upon the whole, it is no more than a severe cold, and is to be managed accordingly." These are, in fact, the very words of BRACKEN, who precedes it with this remark :—"Most authors agree it is so ; giving no opinion of his *own*, beyond its originating in a "severe cold, and is to be *managed accordingly*." He says, "the signs are a staring coat, and heaving of the flanks more than common." That a chest-foundered horse may *happen* to have a *staring coat*, or a heaving of the flanks, from some different or *remote* cause, cannot be denied ; but that *either* of them are diagnostic symptoms of chest-founder, no scientific practitioner will ever admit.

A horse said to be chest-foundered, is almost invariably contracted in the breast between the points of the shoulders ; becoming narrower there, as if there was a *wasting* of those particular parts. If you put him into a *trot*, he moves his legs one before the other with great difficulty, as if they were internally connected, and prevented farther extension by two latent links of a chain. When pressed to a gallop, the case becomes *instantly* decisive ; he labours to get his legs from *under him* without success ; a general constriction pervades the whole of his fore parts ; and his action may, with much more propriety, be termed *jumping* than galloping.

Although no one author has given a proof he ever bestowed an explanatory

thought, or condescended to transmit a single line, upon the *absolute cause* of this very common defect, yet it by no means seems sufficiently involved in ambiguity, to render fair conjecture, or professional opinion, a matter of the least difficulty. As the disorder is invariably fixed upon those subjects which have done the *most expeditious and constant* work, without having been ever known to affect those who have done little or none ; so it is natural to conclude, the intercostal and subclavian muscles must have sustained injury, from the incessant vibrative concussions occasioned by the almost eternal contraction and expansion of those parts, in such labour as horses are put to, who become subject to the misfortune, which partakes much more of oppressed nature than of disease. It should seem, by the great number of horses (decidedly chest-foundered) who experience evident relief, and go with much less pain and difficulty, when they have got warm, that the muscular parts acquire rigidity when in a state of inaction, but expand, and gradually throw off the stricture, so soon as the circulation is increased by action, and perspiration produced ; both which subsiding, the previous stiffness returns. Let, however, what will be the cause, (and upon which the best opinions may vary) instances are very rarely if ever known of perfect cure, or complete eradication. Long rest, by either a summer or winter's run, will always be found productive of relief, and sometimes hold forth a deceptive promise of permanence, which very mild and gentle work may continue ; but hard riding, long journies, or severe labour, will always produce a relapse.

CHILDERS was distinguished from *four* others in succession of the same name, by the appellation of the DEVONSHIRE, or FLYING CHILDERS, having been the *fleetest* horse ever bred or trained in this kingdom, and said to have ran a *mile in a minute*. The fact, however, was not so ; he went the *fourth* of a mile at the rate of a mile in a minute, and beat every horse of his time with ease. He was bred by Mr. Childers ; was foaled in 1715 ; and got by Darley's Arabian, dam (Betty Leedes) by Careless. He covered as a stallion, and was sire of Firetail, Blacklegs, Second, Plaistow, Snip, and Commoner ; all good runners, particularly the first three ; also Blaze, Winall, and Spanking Roger, horses of some note ; as well as Lord W. Manner's Poppet, (an extraordinary runner at five years old) Steady,

Fleece'em, &c. He covered but very few mares, except the Duke of Devonshire's.

BARTLETT'S CHILDERS was likewise bred by Mr. Childers, and was own brother to Flying Childers.

HAMPTON COURT CHILDERS was got by the Devonshire Childers, dam (Duchess) by the Newcastle Turk; and was likewise bred by Mr. Childers.

SMALE'S CHILDERS was bred by Mr. Smale, and foaled in 1726. He was got by Bartlett's Childers; dam by the Byerly Turk.

CHILDERS, commonly called GREY CHILDERS, was bred by Lord Chedworth, and got by the Devonshire Childers; dam by Sir W. Wharton's Commoner.

CHUB. This fish takes its name from the head, not only in our own, but other languages; we call it chub, according to Skinner, from the old English *cop*, a head; the French, *testard*; the Italians, *capitone*; in different parts of England this fish is called *chevin*, *nob*, or *botling*; he much resembles the carp, but is of a longer form; the body is oblong, rather round, and of a pretty equal thickness in the greater part of the slope; the scales are large; the irides silvery; the cheeks of the same colour; the head and back of a deep dusky green; the sides silvery, but in the summer yellow; the belly white; the pectoral fins of a pale yellow; the ventral and anal fins, red: the tail forked, of a brownish hue, but tinged with blue at the end; is altogether a handsome fish; will sometimes weigh upwards of five pounds, but Salvianus speaks of them as increasing to eight or nine. The flesh of the chub is not in much esteem, being coarse, and when out of season full of small hairy bones; the head and throat are the best parts, taking care to have the latter well washed and cleansed from the grass and weeds usually in it. The roe is exceedingly good; and this fish, stewed as carp, will, it is said, deceive an epicure.

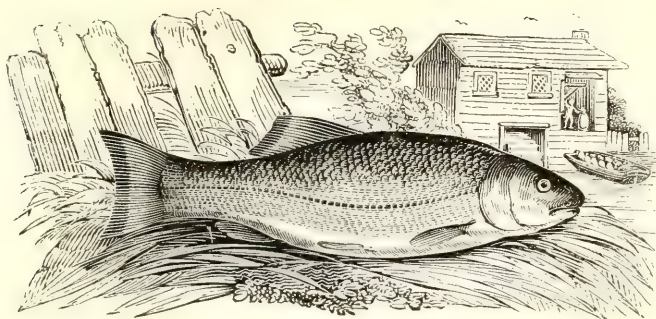
The haunts of the chub are in rivers whose bottoms are of sand or clay, or which are bounded by clayey banks (with the exception of their being found in the Esk, a river noted for the crystalline clearness of its waters, flowing over a rocky bottom), in deep holes, under hollow banks, in summer particularly, where shaded by trees, weeds, &c. they frequently float on the surface, and are sometimes in streams and deep waters where the currents are strong: in ponds, fed by a rivulet, they

grow to a large size. They spawn in April, and are most in perfection in December and January, having then very few of the hairy bones before mentioned.

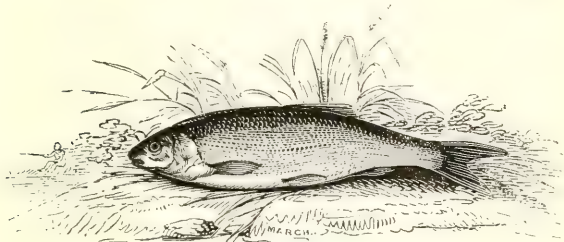
The chub does not afford the angler so much diversion as the trout, from being so dull a fish on the hook, and when once struck becoming soon tired; but he bites so eagerly, that when he takes the bait, his jaws are heard to chop like those of the dog, and having a very wide leather mouth, and his teeth in his throat, there is little danger of his breaking his hold; to fish for him, the angler should have a stout long rod, a strong line (if he uses a reel, he will be enabled the better to fish under bushes) with a yard or more of the best silk-worm gut at bottom, a hook proportioned to the bait used, a swan-quill float, and the line so shotted, eight or ten inches from the hook, as to sink the float to a quarter-of-an-inch above the surface; the same ground-bait is to be used as for the carp, and the hook baited with a sufficient quantity of salmon's roe (boiled a little) to fill the bend properly; this, rightly managed, is a tempting bait. The large ones are to be caught by dibbing, very early in a morning, with the brown beetle, or cockchafer: by day-break the angler should be at the river; and after baiting his hook, let him move it two or three times near the surface, as in the act of flying; then let it drop on the water, shaking the rod gently, which will cause the appearance of its struggling to escape; this attracts the chub, who are so fond of this bait, that they will rise two or three at a time to seize it; the landing-net in this fishing should never be forgotten, as the places most likely for success in taking chub are those where the angler cannot get to the water side to land them with his hands.

Another way of dibbing is in a hot summer's day with a grasshopper. In any hole where they haunt, many of them will be seen basking themselves near the surface; the rod must be both long and of considerable strength; the line strong, and in length about a yard: bait the hook with a grasshopper; and the angler must conceal himself behind some bush or tree, and remain as motionless as possible, (for the chub is so fearful, that the smallest shadow of a bird flying over, or of the rod, makes him sink to the bottom, but he will soon rise again): having selected the largest chub, let him move the rod with great slowness and caution, and drop the bait gently upon the water, three or four inches

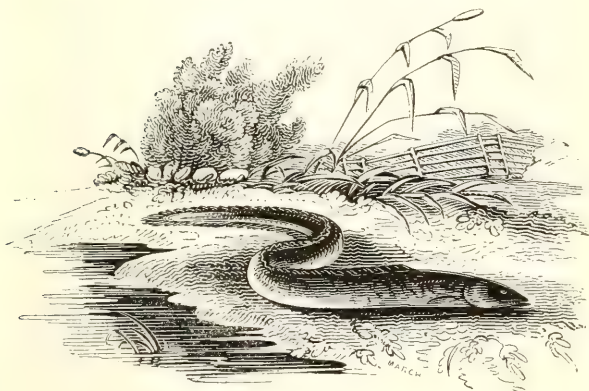
FISH. *Plate II.*



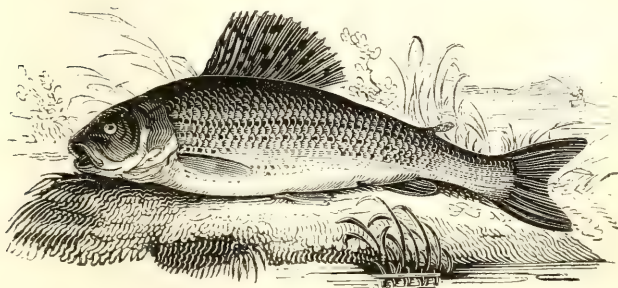
CHUB, *p.* 132.



DACE, *p.* 196.



EEL, *p.* 246



GRAYLING, *p.* 381.

before it, and he will infallibly take it: there is no danger of securing the chub, if allowed play enough before it is attempted to be taken out, being one of the leather-mouthed fishes, wherein a hook seldom loses its hold. In the Thames above Richmond, the best way of using the grasshopper for chub is to pinch off the first joints of the legs, and to fish with it as with an artificial fly. In September, when the weed is rotten, the largest dace are likewise so caught. The chub bites also at cadis, beetles, blue-bottles, and almost any natural or artificial fly that is in season, and will often rise at the red-spinner, when the angler is trying for other fish: black and dun flies made gaudy, and ribbed with gold or silver twist, will succeed in streams. They are bobbed for over bushes, and under hollow banks, where the water can hardly be seen; but they are felt very forcibly when they take. In some counties is used the following peculiar way of dibbing for them, where the still deep holes are in the middle of the river, and too distant from the shore for a rod to reach: a line sufficient, if *all* unravelled, to extend *twice* across the water, but when first began with no longer than from bank to bank, is stretched from two persons on one side to one on the other; at the centre of this line, suspended from it, is a short twine, about a yard long, with a hook baited with a cockchafer or grasshopper: thus prepared, they drop the bait before any chub they prefer; when they have hooked, the person carrying the line in reserve runs it out, whilst the fish is drawn over to the other side; the hook is then fresh baited, the extra line coiled up again to its proper length, and the same method pursued. Many pounds weight are thus taken in an hour.

The chub will take gentles, wasps' maggots, (which must be baked in an oven before used,) paste of fine new white bread, (without being made wet,) worked up in the hand, and tinged with vermilion as near as possible to the colour of salmon's roe: from the hook this paste will not easily wash off, and is a most killing bait; but the best baits for *bottom* or *float*-fishing for this fish, are old Cheshire cheese, (such as without crumbling will mould in the hand,) and the pith from the back bone of an ox, with the outward so carefully taken off as not to bruise the inward skin. At every season of the year the former of these is good; but the latter end of summer, and all the winter, are the preferable times for both. In baiting

with the cheese, put a round lump, the size of a cherry, on a large hook, so as to cover the bend and some way up the shank: fish six inches from the bottom, or in cold raw weather the bait may lie on the ground; but if the hole has not been ground-baited, the depth is immaterial: when there is a bite, the float will be drawn under water; strike immediately, and give him play, holding a tolerably tight line, to keep the fish clear from weeds and stumps, which at sight of the angler he will endeavour to get at for shelter; and if not properly managed, he will break the tackle. In the spring of the year, the chub will take a marsh, or small red worm; in May, June, and July, flies, beetles, snails (the black ones with the belly slit, to show the white); in August, pastes: the large chub will also take minnows, small dace, and gudgeons, angled with in the same manner as for perch; and the latter bait used likewise as in trolling for pike, the hook not so heavy leaded upon the shank; they gorge immediately upon taking the bait: their biting times are chiefly from before sunrise until nine in the morning, and from four until after sun-set in the summer, (some will by chance take at any time of the day, when mild and cloudy); and in the winter the middle of the day is best; remembering that in hot weather they are to be fished for at or near the top, and not deeper than mid-water; and in cold, close to, or upon, the bottom; and that the main point in taking this fish is, the angler's keeping himself out of sight.

CLICKET. When the male and female fox approach each other for the purpose of procreation, they are said to be clicketting.

CLYSTER. A liquid medicine injected by the anus of an animal, with the assistance of a suitable apparatus.

"Clysters administered to horses, says Mr. Clark, are of greater importance in relieving them from many acute complaints than is generally imagined; and it were to be wished, that, in place of the more expensive cordial drenches, &c. which are but too frequently given in most of these cases, a simple clyster of warm water, or thin water gruel, were substituted in their stead; the latter of which would prove of great benefit, whilst the former too frequently prove hurtful.

Clysters serve not only to evacuate the contents of the intestines, but also to convey very powerful medicines into the system, when perhaps it is not practicable to

do it by the mouth; for, although clysters are only conveyed into the larger intestines, and, perhaps, hardly penetrate into the smaller, still they are extremely useful, by fomenting as it were the latter, and, at the same time, by softening the hardened excrement that is accumulated in the former, and rendering it so soft as to be expelled out of the body, by which flatulencies, or other offending matters, that may be pent up in them, are likewise expelled; besides, by their warmth and relaxing powers, they act as a fomentation to the bowels, and hence may be of considerable service in removing spasmodic constrictions in the bowels, carrying off flatulencies, and in preventing inflammation in the intestines, &c. or, by conveying opiates to the parts affected, give speedy relief in colics, &c.

The use of emollient clysters in fevers is considerable: they act by revulsion, and relieve the head when too much affected; besides, by throwing in a quantity of diluting liquor into the intestines, it not only relaxes and cleanses them, but may be said to cool the body in general; at the same time, a considerable portion of the liquid is absorbed, and conveyed into the mass of blood, by which means it is diluted; and, in particular complaints of the bowels, clysters give almost immediate relief. These remedies, when judiciously prescribed, pass directly to the parts affected, as they undergo little or no alteration from the powers of the body."

Mr. Clark further observes, that, as the diseases of horses are cured on nearly the same principles as those of the human body, the doctrines laid down by physicians for the cure of diseases in the latter, are applicable to horses in similar circumstances; only it ought to be observed, for obvious reasons, that the intestines of horses should always be emptied of dung by the repetition of clysters, which have something stimulating in their composition, *previous* to the administering any particular medicine by way of clyster.

"Nor, continues he, is the use of clysters confined to medicines only; food and nourishment may be conveyed into the system in this way, when a horse is unable to swallow any thing by the mouth. This I have frequently experienced in practice, and supported horses for several days together by nourishing clysters, made of thick water gruel, during violent inflammations or tumours in the throat, till such time as they have been discussed or suppurated." The lacteal vessels, whose

mouths open into the inner cavity of the intestines, absorb or drink up the chyle or nourishment that is produced from the food that has been digested, and convey it into the mass of blood. The same process takes place when nourishment is conveyed into the intestines by the anus or fundament, only the food requires to be so far prepared, broken down, and diluted with water, as to render it fit to be absorbed by the vessels mentioned above.

In administering clysters, it ought always to be observed, that the contents of the clyster be neither too hot nor too cold, and only milk-warm, as either of these extremes will surprise the horse, and cause him to eject or throw it out before it has had time to have any effect. Previous to introducing the clyster-pipe, the operator, after anointing his hand and arm with oil, butter, or hog's lard, (observing, at the same time, that the nails of his fingers are short,) may introduce it into the rectum, and draw out the hardened dung gradually. This operation, in farriery, is termed *raking*, or *back-raking*, and becomes the more necessary, as it frequently happens that great quantities of hardened dung are collected in the rectum, and which, in some cases, the horse cannot void easily without assistance of this kind.

The composition of clysters (as Mr. Clark very properly observes,) should be extremely simple. On that account they will be easily prepared, and as easily administered, if the operator is provided with a suitable instrument for the purpose. The generality of clyster-pipes that are commonly used are by far too small and too short: although it may appear a kind of paradox, yet it is a fact, that a clyster-pipe of a larger size than the ordinary ones, and of a proper thickness, is much easier introduced into the anus than one that is considerably smaller. It is likewise obvious, that, when the pipe is too short, it renders clysters of no use, because it cannot convey them so far up into the intestines as is necessary to give them any chance of being retained: a small short pipe, of six or eight inches long, is not capable of conveying the injection to the end of the rectum, which, in a horse of a middle size, is about sixteen or eighteen inches long. In giving injections with these short pipes, the clyster is apt to flow out at the anus, in proportion to the force with which it is injected from the bag or syringe; and this must always be the case, especially if the horse's bladder should happen at the time

to be full of urine, which frequently occurs from its being retained there by the hardened dung in the rectum, which presses the neck of the bladder, and thus prevents the horse from staling.

It happens farther, that, after the hardened dung is taken out of the rectum by the operation above mentioned, the bladder, being distended and full of urine, cannot exert its contracting power immediately, so as to expel its contents. It therefore presses up the empty rectum, and forms, as it were, a kind of tumour in it; and, if the pipe is too short, it cannot reach beyond the rising in the rectum, which forms, as it were, a declivity back towards the anus; and hence the liquor flows back as soon as it is discharged from the pipe, instead of passing forward.

The smallness of the bag or bladder containing the clyster, which is generally proportioned to that of the pipe, is another very material objection to this small apparatus, as it seldom contains one quart of liquid; from which circumstance very little benefit can be derived from the use of clysters in such large intestines as those of a horse. Dr. Bracken, in his first volume, has this very judicious remark on the use of clysters: he observes, that the colon of a horse seems to be three guts, by reason of the two necks of about half-a-yard each, drawn up into many cells or purses, by means of two ligaments, one of which runs along the upper, and the other the under side of it, which, with the assistance of a valve or flap at its beginning, hinder the excrements either from returning back into the small guts, or falling too soon downwards, before the chyle or milky substance prepared from the food be taken into its proper vessels. And, indeed, the cæcum, or blind gut, which is the first of the three larger guts, seems to be so contrived, in the manner of a valve, to hinder the aliment and chyle from passing too soon into the colon; for, if the aliment and chyle were not in some measure hindered in their passage through these large guts, the body could not be sufficiently supplied with nourishment.

The first of these colons is about a yard and a half in length, the second about a yard, and the third, or that part which joins the rectum, near six yards in length; so that the colon of a horse fourteen hands high may be said to be nearly eight yards and a half long; and, from it, along the rectum or straight gut, to the anus, where the excrements are discharged, is not above half-a-yard; so that it is plain clys-

ters operate mostly in the colon, though generally they are given in too small quantities; for what signifies two quarts of liquor in a gut nine yards long, and four or five inches diameter, in a natural state? but, in a colic, it is so distended with flatulencies, that its diameter exceeds seven or eight inches, as Mr. Clark has observed in those dying of that distemper.

Large metal syringes are frequently used for the purpose of giving clysters; but, of all the instruments ever invented, Mr. Clark thinks, these are the most improper for horses. The shortness and smallness of their ivory pipes are not only a material objection, as has been observed, but they are apt to tear and wound the gut; for, if a horse should prove restless, either from pain, as in cases of the gripes, or from viciousness, the syringe and pipe being quite inflexible, in the struggle to throw up the injection, the gut may be wounded, by which a discharge of blood and other bad consequences may follow. But, although there were not the least chance either of their hurting the horse or wounding the gut, yet the force with which they throw up the liquor, always causes a surprise, and, of course, a resistance, attended with a vigorous effort to throw it out, which indeed frequently happens before the pipe of the syringe is withdrawn, and frequently upon the operator.

The instrument Mr. Clark prefers, for the purpose of giving clysters, is a simple bag or ox-bladder, which will hold two or three quarts, tied to the end of a wooden pipe fourteen or fifteen inches long, one inch and a half diameter where the bag is tied, and becoming gradually taper to the extremity, where the thickness should suddenly increase, and be rounded off at the point as smooth as possible. The hole through the pipe may be made sufficiently large, so as to admit the end of a common funnel, for pouring in the liquor into the bag. By the flexibility of the bladder at the end of this instrument, no danger can happen to the horse; whilst the clyster is conveyed so far up into the intestines, that it will be retained. It causes no surprise (provided the liquor be neither too hot nor too cold, but about the warmth of the intestines themselves), as no other force is required to throw it up than the holding the bag a little higher than the level of the pipe; by which means the liquor flows gently into the gut, without any surprise to the horse. After using

the bag, it may be blown full of wind, a cork put into the pipe, and hung up in some dry place, to prevent it from rotting; by which means it will be fit for use on future occasions.

Clysters are distinguished by different names, which denominate the quality of the ingredients of which they are composed, as emollient, laxative, diuretic, anodyne, &c. As the more general use of clysters, in the practice of farriery, would be attended with the most salutary effects, especially in acute diseases, where the speediest assistance is necessary, Mr. Clark subjoins the following forms for composing them, together with the cases in which they may be administered with advantage.

EMOLLIENT CLYSTER.

Take of thin water-gruel, 2 or 3 quarts.

Olive oil, 6 oz.

Coarse sugar 6 oz.

Dissolve the sugar in the water-gruel, then add the olive oil.

LAXATIVE CLYSTER.

Take of thin water-gruel, 2 or 3 quarts.

Glauber's salt, 8 oz.

Olive oil, 6 oz.

When Glauber's salt is not at hand, common salt may be used in its stead.

A great variety of recipes might be added for making clysters, composed of the infusion of different herbs, seeds, &c.; but, as the above ingredients are always easily got, they will be found to answer all the intentions required under this head, which is to soften the hardened excrements, to lubricate the intestines, and, by exciting a gentle stimulus, promote a free discharge of their contents, which, when once obtained, seldom fail of giving relief in inflammatory cases, spasms, &c.

PURGING CLYSTER.

Take two ounces of senna.

Two quarts of boiling water.

Infuse the senna, and having strained the liquor off, then add

Syrup of buckthorn, 4 oz.

Common oil, 4 oz.

This clyster will operate more briskly than the former; and, on that account, may be preferred when an immediate or speedy discharge is necessary.

ANODYNE CLYSTER.

Take of the jelly of common starch, or of an infusion of linseed, one pint.

Tincture of opium, one ounce, or about two table-spoonfuls.

When there is reason to apprehend inflammation in the bowels, solid opium may be given in place of the tincture,

from twenty to thirty grains, in proportion to the urgency of the symptoms. It ought, however, to be well triturated or rubbed in a mortar, with a little of the liquid, till it is thoroughly dissolved. The smallness of the quantity of liquid here recommended, gives it the better chance of being the longer retained, as the good effects to be derived from the opium depend entirely on this circumstance. This clyster is proper to be given in violent gripings, attended with purging, in order to blunt the sharpness of the corroding humour, and to allay the pain usual in such cases. The starch will also in some measure supply the deficiency of the natural mucus, or covering of the intestines, which has been carried off by violent purging. It may be repeated, if the symptoms continue violent, only diminishing the quantity of laudanum, or of the opium.

NUTRITIVE CLYSTER.

Take of thick water-gruel, well boiled, three quarts.

When nourishing clysters are found necessary, they may be given four or five times in the day, according as circumstances may require. They are of considerable service in cases where the horse cannot eat sufficiently to support himself, nor swallow any thing, from inflammation of the throat, jaws, &c or in convulsions, attended with a locked jaw, &c. Perhaps milk-gruel might be substituted with advantage.

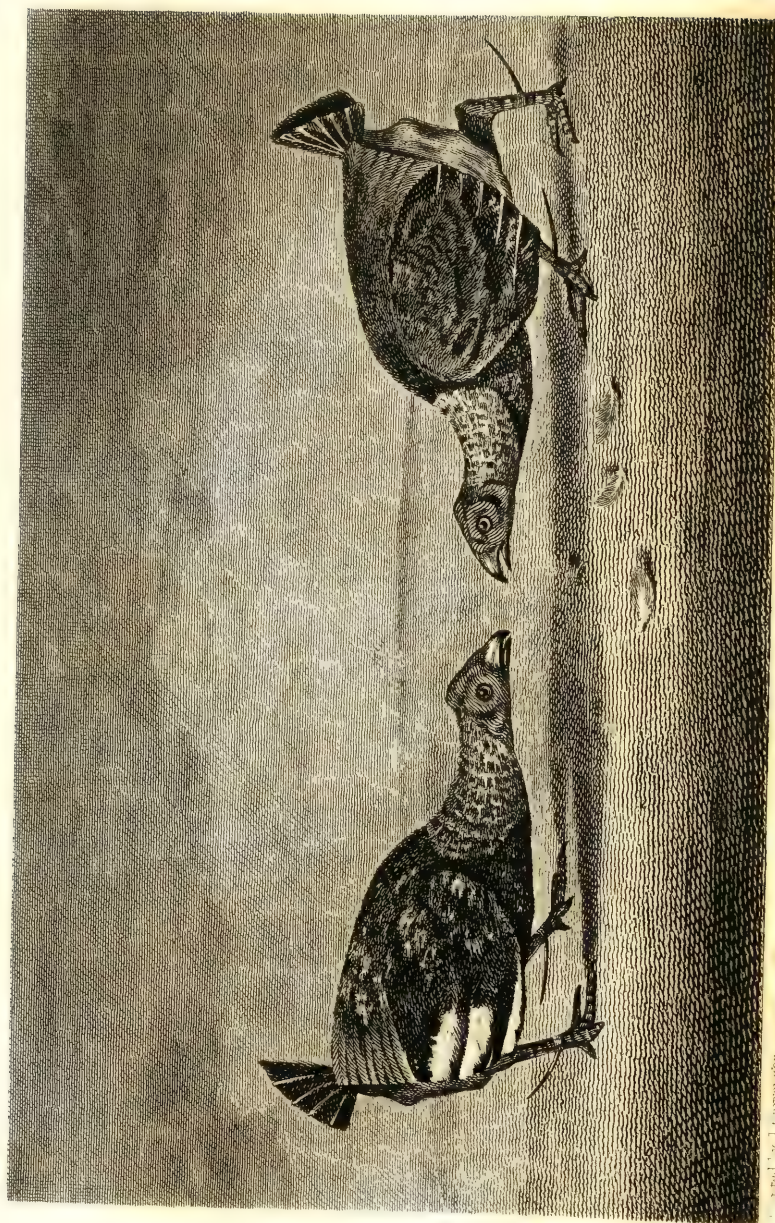
DIURETIC CLYSTER.

Take of Venice turpentine, two ounces; Castile soap, one ounce.

Dissolve the soap in two quarts of warm water, then add the turpentine, previously well beaten up with the yolks of two eggs.

Mr. Clark says, this diuretic clyster is of great use in the strangury, and in obstructions of the urinary passages. As it is immediately applied to the parts affected, it seldom fails of giving relief, and has a much better effect, when prescribed in this manner, than when given by the mouth; because it then mixes with the whole mass of fluids, and may lose a considerable portion of its diuretic quality before it reaches the kidneys: but, by being administered in the form of a clyster, it is readily absorbed by the neighbouring vessels, and promotes a free discharge of urine.

It is unnecessary to multiply formulæ for clysters, which are given by most of the modern veterinary writers, and have each their share of excellence. We shall



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THE END OF THE WORLD

confine ourselves, therefore, to the following forms given by Mr. Denny.

Take of Glauber's salt, four ounces.

Decoction of linseed, three quarts.

Olive oil, half a pint. Mix.

Take of oatmeal gruel, four quarts.

Common salt, four ounces.

Olive oil, half a pint. Mix.

Take of oatmeal-gruel, four quarts.

Barbadoes aloes, one ounce. Mix.

Mr. Clark observes, that there are many cases where clysters may be administered with great success, besides those already hinted at, as in inflammatory fevers, spasmodic constrictions, and colicky complaints in the bowels; in recent coughs, apoplexy, convulsions, paralytic complaints, swelling of the belly, whether from air or from hardened excrements.—They are required also in cases where horses are troubled with worms, as the ascarides, which lodge in the lower part of the intestines; or when bots are observed sticking in the anus, or voided with the dung; in very costive habits, before laxative or opening medicines are given by the mouth; in wounds which penetrate deep into the muscular or tendinous parts, or in the belly, &c.; in inflammation of the eyes, or when the head seems particularly affected; in inflammatory swellings on any part of the body. Clysters composed of mucilaginous substances, as starch, linseed, &c. are also of great benefit in violent diarrhoeas, whether proceeding from natural causes, or from too strong purging medicines given by ignorant farriers.

It ought always to be remembered, that clysters should be repeated frequently, till such time as the disorder for which they are given is either removed or greatly abated. This injunction may be the more readily complied with, as the administering clysters to horses is not attended either with much trouble to the operator, or disturbance to them.

Mr. Clark adds the following caution

with regard to the operation of clysters: It frequently happens, in colics, and other complaints in the bowels, that a horse will dung frequently, probably from pain, &c. but in a very small quantity at once; at the same time, what he passes may appear somewhat soft or loose. In such cases, the practitioner may be told that clysters are unnecessary and superfluous: this, however, ought not to prevent him from prescribing them; as, in such cases, the flatulences which occasion the disorder may be seated in the colon, where the excrements at the same time are extremely hardened; and it frequently happens, that, after the second or third injection, they are discharged in such a quantity, and in such a state, as to surprise those who were just before opposing and deriding the practice recommended. These prejudices every practitioner will have to combat; for he will frequently have as troublesome nurses to deal with as the physicians complain of, and who are no less ready with their impertinent advice.

COAT. The coat of a horse (which the hair is called) is not only an object of sporting exultation when the horse is in fine condition, but, to the judicious and penetrating eye, is in a great degree indicative of the state of health. Nothing will so soon demonstrate the ability, the care and attention of the groom, as the coat of his horse. If the coat is observed to become suddenly rough, standing different ways, with a dusty hue underneath, and the hair to look harsh and bristly upon the surface, the blood is then sily, and tending to an unhealthy state; the porous system has been collapsed by some chilling exposure to wet or cold; the integument acquires a tightness and rigidity, which, if not relieved, soon displays itself in some slight degree of disease: this may, in general, be prevented by taking away blood, and proceeding upon a short course of antimonial alteratives.

COCKING. Men have long availed themselves of the antipathy one cock shews to another, and have encouraged that natural hatred, for the purpose of producing diversion. The origin of this sport is said to be derived from the Athenians, on the following occasion:—When Themistocles was marching his army against the Persians, he, by the way, espying two cocks fighting, caused his army to behold them. “Behold, these do not fight for their household gods, for the monuments of their ancestors; not for glory, not for liberty,

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nor for the safety of their children, but only because the one will not give way unto the other." This so encouraged the Grecians, that they fought gallantly, and obtained the victory over the Persians; upon which cock fighting was, by a particular law, ordained to be annually practised by the Athenians.

The inhabitants of Delos were great lovers of this sport, and Tamagra, a city of Bælotia, the isle of Rhodes, Chalcis in Eulæa, and the country of Media, were famous for their generous and magnanimous race of chickens. It appears they had some method of preparing the birds for battle. Cock fighting was an institution partly political, at Athens, and was continued there for the purpose of improving the seeds of valour in the minds of their youths.—But it was afterwards perverted and abused, both there and in other parts of Greece, to a common pastime and amusement, without any moral, political, or religious intention, as it is now followed and practised amongst us. It appears that the Romans, who borrowed this, as well as many other things, from Greece, used quails as well as cocks for fighting. The first cause of contention between the two brothers, Bassianus and Geta, sons of the Emperor Septimius Severus, happened, according to Herodian, in their youth about fighting their quails and cocks. Cocks and quails, fitted for the purpose of engaging one another to the last gasp for diversion, are frequently compared in the Roman writers, and with much propriety to gladiators. The fathers of the church inveigh with great warmth against the spectacles of the arena—the wanton shedding of human blood in sport. One would have thought that with this, cock fighting would also have been discarded, under the mild and humane genius of Christianity; but it was reserved for this enlightened era, to practise it with new and aggravating circumstances of cruelty.—The Shrove Tuesday massacre is now, indeed, abolished; but that monstrous barbarity, the battle-royal and the Welch-main, still continue amongst us—a striking disgrace to the manly character of Britons.

It is probable that cock fighting was first introduced into this island by the Romans. The bird itself was here before Cæsar's arrival.

William Fitz Stephen, who wrote the life of Becket, in the reign of Henry II. is the first of our writers who mentions cocking, describing it as the sport of school-boys on Shrove Tuesday. The theatre (the cock-pit) it seems was the school, and the master was the comptroller and director of the sport; from this time at least, the diversion, however absurd, and even culpable, was continued amongst us. It was followed, though disapproved and prohibited (39 Edward III.); also in the reign of Henry VIII. and A.D. 1569. It has by some been called a royal diversion, and every one knows the cock-pit at Whitehall was erected by a crowned head, for the more magnificent celebrating of the sport. It was prohibited, however, by one of Oliver's acts, March 31, 1654.

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AN ORDINANCE PROHIBITING COCK-MATCHES.

Fryday March 31. 1654. Ordered by His Highness the Lord Protector, and his Council, That this Ordinance be forthwith printed and published.

HENRY SCOBELL, Clerk of the Council.

London, Printed by *William du-Gard and Henry Hills*, Printers to His Highness the Lord Protector, 1654.

Whereas, the Publique Meetings and Assemblies of People together in divers parts of this Nation, under pretence of Matches for Cock-fighting, are by experience found to tend many times to the disturbance of the publique Peace, and are commonly accompanied with Gaming, Drinking, Swearing, Quarrelling, and other dissolute practices, to the dishonour of God, and do often produce the ruine of Persons and their Families: For prevention thereof, Be it Ordained by his Highness the Lord Protector, by and with the advice and consent of his Council, That from henceforth there shall be no publique or set meetings of Assemblies of any persons within *England* or *Wales*, upon Matches made for Cock-fighting; And that every such meeting, and assembly of people for the end and purposes aforesaid, is hereby declared to be an unlawful Assembly, and shall be so adjudged, deemed and taken to be, and punished; And all Sheriffs, Justices of the Peace, Maiors, Bayliffs, Constables, and Head-boroughs, within their several Counties, Cities, Limits, and Jurisdictions, are hereby required to suppress, hinder, and disperse all such meetings and assemblies.

Friday March 31. 1654. Ordered by his Highness the Lord Protector, and his Council, That this Ordinance be forthwith printed and published.

Henry Scobell, Clerk of the Council.

There is always a great secret made amongst cock-feeders of their arts of training; being an amateur of the cock-pit, and having seen the management of many different feeders, I am really inclined to deny them the greater part of the merit they would arrogate to themselves. I am convinced that a great deal depends upon breed, and *nearly* all the rest upon the cocks being well walked, and in good condition, both of body and plumage. A well-walked cock will strike harder, and fight, in steel, with more vigour and success when he has been taken from his walk for three or four days, than one that has been ill-walked, but has had all the improvement that feeding can give. For fighting in silver, more trim, exercise, and physic are required.

A very proper and indispensable prelude to feeding of any sort is the breeding up of cocks that will bear such a course of training as they are usually subjected to. Corn of the finest quality and of the

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easiest digestion—that which has been housed the ripest, presents itself as the food best adapted to the whole feathered tribe, though the habits of some lead them to devour animal food, fish, and other substances. But what is the condition of such birds? what their propensities? We need scarcely bestow a single thought upon the appropriate answer; and in that answer, will be found the impolicy of bringing up game chickens, as of training game cocks, upon raw meat, according to the general practice (it is apprehended), when worms are obtained with difficulty. Much better would it be to convert the meat into gentles, by means of artificial heat, in the same manner as anglers procure such worms by the heat of the sun and the blowing of flies. For this purpose (seeing that the worms would be mostly required early in the year), some large blow-flies may be put away in autumn, and be raised from the dormant state by heat, so as to impregnate (or blow) animal matter in abundance; nor will they readily leave the genial retreat provided for them, though left at large, if they are sheltered from the action of the boisterous winds that prevail early in the year.

Exercise and good water appear to us primely essential requisites in training cocks; and the walks provided for them should possess the means of obtaining both. As, in attaining the first mentioned, frequent runs will be required, the advantage of a field adjacent would mainly conduce thereto, so also conveniences should be provided for separating the quarrelsome from each other. This latter more especially, since the practice of permitting the stags and younger chickens to spar occasionally; will improve their wind, try their pluck, and reduce the quantity of fat which gathers round the gizzard, the heart, &c. in highly fed animals; besides, that when these bouts are over, if one does not give in, or run under the other, they will be always at it, and must be separated.

Wherever the convenience exists of making a small streamlet of fine clear water, this course should be adopted in preference to using shallow pans that require frequent filling, which soon get muddled by the fowls walking over them, and the readiness of attendants to replace clean water instead, seldom keeps pace with the spoliation and wants of the game animals, which stand in need of much drinking.

“ Rules and Orders for Cocking, at the Cock-Pit Royal, Westminster.

“ On the weighing morning, the person whose chance it is to weigh last, is to set his cocks and number his pens, both main and byes, and leave the key of the pens upon the weighing table (or the other party, if he pleases, may put a lock on the door) before any cock is put into the scale, and after the first pack of cocks are weighed, a person appointed by him that weighed first shall go into the other pens to see that no other cocks are weighed but what are so set and numbered, provided they are within the articles of weight that the match specifies; if not, to take the following cock or cocks,

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until the whole number of main and bye cocks are weighed. And after they are all weighed, you are to proceed as soon as possible to match them, beginning at the least weight first, and so on; and equal weights or nearest weights to be separated, provided by that separation a greater number of battles can be made, and not otherwise; and all blanks, that is, choice of cocks, are to be filled up on the weighing day, and the battles divided and struck off for each day's play, as agreed on, and the cocks that weigh the least are to fight the first day, and so upwards.

"At the time agreed on by both parties to begin fighting, the cocks that are to fight the first battle are brought upon the pit by the feeders, or their helpers; and after being examined, to see they answer the marks and colours specified in the match-bill, they are given to the setters-to, who, after chopping them in hand, give them to the gentlemen who are called masters of the match (who always sit opposite to each other) when they turn them down upon the mat; and the setters-to are not to touch them, except they either hang in the mat, in each other, or get close to the edge of the pit, until they leave off fighting, so long as a person can count forty.

"When both cocks leave off fighting, until one of the setters-to, or a person appointed for telling the law, can tell forty gradually; then the setters-to are to make the nearest way to their cocks, and as soon as they have taken them up to carry them into the middle of the pit, and immediately deliver them on their legs, beak to beak, and not touch them any more till they have refused fighting, so long as the teller of the law can count ten, unless they are on their backs, or hung in each other, or in the mat: then they are to set-to again in the same manner as before, and continue it till one cock refuses fighting ten several times, one after another, when it is that cock's battle that fought within the law.

"But it sometimes happens that both cocks refuse fighting while the law is telling; when this happens, a fresh cock is to be hovelled, and brought upon the mat as soon as possible, and the setters-to are to toss up which cock is to be set-to first, and he that gets the chance is to choose. Then the other which is to be set-to last, must be taken up, but not carried off the pit; then setting the hovelled cock down to the other, five separate times, telling ten between each setting-to, and then the same to the other cock; and if one fights and the other refuses, it is a battle to the fighting cock; but if both fight, or both refuse, it is a drawn battle. The reason of setting-to five times to each cock, is, that ten times setting-to being the long law for one cock only, so on their both refusing, the law is to be equally divided between them, as they are both entitled to it alike.

"Another way of deciding a battle is, if any person offers to lay ten pounds to a crown (that is, if he is a person thought capable of paying when he loses, or one who stakes his money upon the mat) and no person takes it until the law-teller tells forty and calls out three separate times, "Will any one take it?" and no one does, it is the cock's battle the odds are laid on, and the setters-to are not to

COCKING

touch the cocks during the time the forty is telling, without either cock is hung in the mat, or on his back, or hung together.

“If a cock should die before the long law is told out, although he fought in the law, and the other did not, he loses his battle; for there cannot be a better rule for a cock winning his battle than killing his adversary in the limited time he is entitled to by cock laws.

“There are often disputes between the setters-to, as also with the spectators, respecting their counting the long law, for often both cocks refuse fighting until four or five, or more or less times, are told; then they begin telling from that cock's fighting, and counting but once refused, but they should continue their number on, until one cock has refused ten times; for, when the law is begun to be told, it is for both cocks: for if one cock fights within the long law, and the other not, it is a battle to the cock that fought, counting from the first setting-to.

“All disputes about bets, or the battle being won or lost, ought to be decided by the spectators; for, if the bets are not paid, nor the battles settled according to judgment then given, it will be good evidence in law, if an action is brought for the recovery of such bets. The crowing and mantling of a cock, or fighting at the setter-to's hand, before he is put to the other cock, or breaking from his antagonist, is allowed no fight.”

The cocking season usually begins about Shrovetide, and has an equal duration with that of racing; races being seldom held without the addition of cock-fighting. There is, perhaps, scarcely a county in England, in which this sport does not prevail in some degree; *but the Cock-pit-Royal*, Tufton-street, Westminster, is the grand theatre. The battles commence there, each night, throughout the season, at a quarter before six o'clock precisely. We have had, in all times, some men of quality and distinction attached to this sport.

The fighting principle is by no means confined to the domestic cock, since other birds partake of it in a proportionate degree; for example, the pheasant and partridge, and even the sparrow and diminutive tom-tit! There is considerable analogy between the sports of the Turf and the Cock-pit. They are both derived from classical antiquity, and have, together, been patronised and practised for centuries, in this country almost exclusively; the chief exception, perhaps, being the native Hindoos, or inhabitants of India, who have, from the early ages, practised this sport with their large breed of cocks. The game-cock, like the race-horse, is a fine-boned, clean-shaped, and symmetrical variety of the species, discovered by man from those outward and visible signs, to be properly adapted to those purposes to which they were consequently applied. Game-fowls and race-horses are kept rigidly apart from commixture with any other variety, since they, being possessed of a peculiar intrinsic superiority, any alien or inferior cross must necessarily have the effect of destroying the integrity of the breed; in fact, of rendering it totally incompetent to its intended purposes. In one respect, there is a difference

of opinion between the cock-walk and the breeding stud. In the former, they make no scruple to breed in and in, that is, from the nearest affinities, putting the game pullets to their own sire.

An *aspirant* after the laurels of the sod and cock-pit, whom, from his natural *penchant* for strife and contention, for battle, murder, and sudden death, we can do no less than dub a *hero* by nature, born to defend his own dunghill,—must adopt the following fundamental rules, if he would insure success and not subject himself to the painful and disgraceful necessity of retracing his steps. Let him seek and practice the best *advice*, provide the best breed of cocks, the best breeders and trainers, (honest, *if* he can find such); and, without sparing any necessary expense in keeping, feeding, and training, let him bring them to the pit at the best age, and in the most blooming condition.

In the days of Charles II. and old Frampton, the get of SOURFACE were all the *ton*. So many new best breeds, that is, fashionable changes of colour succeeded, from that early period to the time from which we can date our first reckoning, that our allotted space would be insufficient for the bare catalogue.

Black cocks formerly contended for popular favour awhile, but without success; they have, however, bequeathed the legacy of a portion of their blood to the pit, as is proved by one of the present favourites, the *black-breasted red cock*. This colour has, however, found a rival in the *Norwich or Gurney pied cock*. Both colours have proved successful in country mains, and at the Cock-pit-Royal, in the metropolis. Cocks are *heeled* for battle with steel or silver spurs, and much, or, by chance, every thing, may depend on the judicious fixing of these spurs; a thing to be determined by the mode in which the cock uses his natural weapons. An experienced cocker only, of course, can be *au fait* at this critical business, and his lesson will not be quite learned unless he has witnessed a trial of the cock and his peculiar mode of striking. Young cocks are called *stags*, and the bird is in his prime at two years old. A *Welch main*, in which the survivors continue to fight to the last gasp, until the last have no fellow combatant surviving to do him the final charitable office, must needs glut the most heroic thirst of blood, even that of Cadwallader himself, were he in existence.

COCK-FEEDER signifies a person whose occupation it is to collect, handle, and feed a pen of cocks, to fight such main or match as may be made or agreed on, by those who deposit the battle money, and are called the masters of the match. These find or procure the cocks, of which the feeder takes charge; and to his judgment is submitted the entire management of selecting, rejecting, feeding, physicing, sweating, sparring, weighing, cutting out, (alias trimming,) and bringing his bag and cock to the pit; where, upon delivering it to the setter-to, his function ceases

in respect to that particular cock, till death has sealed his disgrace, or success proclaimed his victory.

COCK-MATCH, an agreement and article entered into by opposite parties, to shew any number of cocks (as twenty-one, thirty-one, forty-one,) on each side in the main, and ten in the byes, to fight for ten guineas a battle, and fifty the odd." The cocks so agreed to be matched, are under the management of their different feeders till the day specified in the article for their being shewn and weighed; which day is, upon most occasions, the

day but one preceding the day on which the main begins to be fought. This ceremony is attended to with the most scrupulous nicety on each side; every cock is weighed precisely to a quarter of an ounce; his colour described almost to a feather; his marks in the eye, the right and left norrel, the in right and out left in the feet, are all taken down in writing, with the same accuracy as the weight; the whole being entered in the match-bills to be produced, read, and compared, with the cocks as they are brought to pit at the commencement of every battle.

The number of cocks having been shewn and weighed on each side, the match-bills, containing their weights, are compared; and all those who are either dead weights, or within an ounce of each other, are said to fall in, and are called main battles; in contra-distinction to those who do not come within the ounce of each other, and are thrown into the byes; which are generally fought for a trifling sum, and have no affinity whatever to the main. Should the cocks, thus falling in, constitute either a very small or an even number, it is usual then to separate cocks of dead weights, or the nearest so, to match against others, (giving or taking an ounce in weight) that the main may be extended in respect to the number of battles, and that number to be odd; thereby preventing, if possible, the mains being undecided; which, indeed, sometimes happens unavoidably by the chance of a drawn battle.

That the match may be the better understood, let it be supposed that A stands engaged with B "to shew twenty-one cocks on each side, ten guineas a battle, and fifty the main or odd battle." Of these fifteen fall into the main; and the remaining six are thrown into byes, and fight for two guineas a battle. It is in such case a custom to fight a part of the byes, both before and after such part of the main as is fought on each day, whether it is finished in one day, or is a long main of many days' duration. The match being concluded, we find A has won nine main battles and two byes; B six main battles and four byes; when the winning and losing will stand precisely thus: A having three battles ahead in the main, is a winner of fifteen guineas upon the single battles; and winning the main also, he wins the twenty-five guineas upon that event; making himself the creditor for forty guineas: but in the byes, B having the advantage of four battles to two won

by A, affords him a drawback of two guineas; and B is the loser of thirty-eight guineas battle-money upon the whole match; it being remembered, the byes were fought for only two guineas a battle; or, in other terms, a guinea each cock. And this it will be necessary for young adventurers to remember, that a match made for "ten guineas a battle," is tantamount to five guineas each cock; and "fifty guineas the odd of the main," is always *bona fide* understood a deposit (if required) before fighting of five-and-twenty guineas aside.

Cocks of middling size, and adequate powers, are always considered the sharpest and best fighters; in confirmation of which opinion, custom has established the match weights from three pounds six ounces, to four pounds eight; none to be shewn and weighed in the main under the former, or above the latter, unless an extension to either a lower or a higher weight should be agreed on by the parties. Sometimes (but very seldom) a short match, of a different kind, takes place, and is termed a "shake-bag" match, (or battle); which is no more (the battle money having been previously agreed on) than "turning the cock out at the bag's mouth" in the pit, to meet his opponent, without ever having been brought to the scale, or the weight of his adversary ascertained.

In weighing the cocks, and making the match-bill, it is an invariable rule to begin with the lightest pair, who are to fight first, and so continue according to their weight upwards; such successive pair being heavier than the former, so that the heaviest pair of cocks are fought the last. Various sums being betted upon a match (or main) soon after it is made, it may not be inapplicable to observe, that those who lay the odds in any proportion, as five to four, six to four, two to one, (or whatever odds may be laid,) either upon the main or a single battle, is always entitled to the privilege of choosing his side, although it may not be mentioned; and this right he is possessed of in consequence of laying the odds.

COCKPIT. A place appropriated entirely to the purpose of cock-fighting, for which it is erected: it is usually of an oblong or circular form, surrounded with seats, to which the spectators pay for admission; and, in great mains, or subscription matches, the feeders generally agree with the masters of the match, to receive the whole of this door money, (equally

*Cock-Fighters' Pit, Westminster, containing all the Colours
and Marks sending them out to Walk, or to arrange and
number the*

										lb. oz. qr.
1 ..	Spotted Breast	Whitest								3 9 1
	<i>Spd</i>	<i>B</i>	<i>Wts</i>							
2 ..	Streaked Breast	Whitest								3 9 2
	<i>St</i>	<i>B</i>	<i>Wts</i>							
3 ..	Streaked Breast	Nails								3 12 0
	<i>St</i>	<i>B</i>	<i>Nls</i>							
4 ..	Spotted Breast	Nail Whitest								3 12 2
	<i>Spd</i>	<i>B</i>	<i>N</i>	<i>Wts</i>						
5 ..	Spotted Breast	Striped Nails								3 13 1
	<i>Spd</i>	<i>B</i>	<i>St</i>	<i>Nls</i>						
6 ..	Streaked Breast	Right Middle Nails	Whitest							3 13 1
	<i>St</i>	<i>Rt</i>	<i>M</i>	<i>Nls</i>	<i>Wts</i>					
7 ..	Streaked Breast	In Right Out Left, Middle Nail Left	Whitest							3 12 2
	<i>St</i>	<i>In</i>	<i>Rt</i>	<i>Ot</i>	<i>Lt</i>	<i>M</i>	<i>N</i>	<i>Lt</i>	<i>Wts</i>	
8 ..	Spotted Breast									3 13 3
	<i>Spd</i>	<i>B</i>								
9 ..	Brick Breast	Whitest								3 14 0
	<i>Bk</i>	<i>B</i>	<i>Wts</i>							
10 ..	Streaked Breast									3 13 1
	<i>St</i>	<i>B</i>								
11 ..	Black Breast	Nails								3 9 2
	<i>B</i>	<i>B</i>	<i>Nls</i>							
12 ..	Black Breast									3 10 1
	<i>B</i>	<i>B</i>								
13 ..	Large Streaks,	Punched Out Right,	Dark Nails							3 14 1
	<i>Lag</i>	<i>St</i>	<i>Pund</i>	<i>Ot</i>	<i>Rt</i>	<i>Dk</i>	<i>Nls</i>			
14 ..	Ginger Breast	ight, Punched In Left,	White Nails							3 13 3
	<i>Gin</i>	<i>B</i>	<i>Rt</i>	<i>Pund</i>	<i>In</i>	<i>Lt</i>	<i>W</i>	<i>Nls</i>		
15 ..	Streaked Breast	Nails								3 13 0
	<i>Std</i>	<i>Nls</i>								
16 ..	Spotted Breast	Middle Nail Left Shortest,	Right Heel Gouty							3 12 3
	<i>Spd</i>	<i>B</i>	<i>M</i>	<i>N</i>	<i>Lt</i>	<i>Shts</i>	<i>Rt</i>	<i>Eel</i>	<i>Gouty</i>	
17 ..	Starling Breast									3 13 1
	<i>Star</i>	<i>B</i>								
18 ..	Smock Breast									3 11 3
	<i>Smock</i>	<i>B</i>								
19 ..	Spangle Breast	ight Short								3 11 1
	<i>Spng</i>	<i>B</i>	<i>Rt</i>	<i>Short</i>						
20 ..	Dun Breasted	Middle Nails	Whitest							3 12 2
	<i>Dn</i>	<i>B</i>	<i>M</i>	<i>Nls</i>	<i>Wts</i>					
21 ..	Pheasant Breast									3 12 3
	<i>Phst</i>	<i>B</i>								
22 ..	Black Breast	White Nails								3 13 3
	<i>B</i>	<i>B</i>	<i>W</i>	<i>Nls</i>						
23 ..	Black Breast	ight, Out Left, Middle Nails	Whitest							3 14 3
	<i>B</i>	<i>B</i>	<i>Rt</i>	<i>Ot</i>	<i>Lt</i>	<i>M</i>	<i>Nls</i>	<i>Wts</i>		
24 ..	Black Breast	en Nails								3 15 2
	<i>B</i>	<i>B</i>	<i>Nls</i>							
25 ..	Ginger Breast	ut Right, Middle Nails	White, others Dark							3 15 3
	<i>Gin</i>	<i>B</i>	<i>Rt</i>	<i>M</i>	<i>Nls</i>	<i>W</i>	<i>others</i>	<i>Dk</i>		
26 ..	Spotted Breast									3 15 1
	<i>Spd</i>	<i>B</i>								
27 ..	Little Spotted	Heel Larked								4 0 2
	<i>Lit</i>	<i>Spd</i>	<i>Eel</i>	<i>Larked</i>						
28 ..	Spotted Breast	Nails								4 0 2
	<i>Spd</i>	<i>B</i>	<i>Nls</i>							
29 ..	Spotted Breast									4 1 1
	<i>Spd</i>	<i>B</i>								
30 ..	Black Breast	ack Nails								4 0 3
	<i>B</i>	<i>B</i>	<i>B</i>	<i>Nls</i>						

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Cock-Fighters' Short-Hand exemplified, by Way of a Match-Bill for a grand Main of Cochs fought at the Royal Cock-Pit, Westminster, containing all the Colours and Marks of a Cock, and intended as a Guide to the Young Cock-Fighter, showing how to Mark his Birds when sending them out to Walk, or to arrange and number them when making out a Match-Bill, by Mr. RICHARD FLEMING. (To face page 144.)

1..	Spotted Breasted Red,	Low Comb,	Highest Left Back,	Right Norel,	Fowl Cut,	Green Legs,	Both Right Out Left,	Middle Nail Right Whitest	lb. oz. qr.
	<i>Spd</i>	<i>B R</i>	<i>Lo Co</i>	<i>Ht Lt Bk</i>	<i>Rt No</i>	<i>Fl Ct</i>	<i>Glgz</i>	<i>Bth Rt Or Lt</i>	3 9 1
2..	Streaked Breasted Red,	Low Comb,	Curled Forward,	Ears On,	Fowl Cut,	Green Legs,	Both Right, Duck Footed,	Left, Middle Nails Whitest	3 9 2
	<i>St</i>	<i>B R</i>	<i>Hd Lo Co</i>	<i>Curd Ford</i>	<i>Ea On</i>	<i>Fl Ct</i>	<i>Glgz</i>	<i>Bth Rt, Dk Fld Lt</i>	<i>M Nls Wts</i>
3..	Streaked Breasted Red Wings,	Poyle Wings,	Low Sedy Comb,	Hawk Beak,	Left Norel,	Little Mould Eared,	Yellow Legs,	Striped Nails	3 12 0
	<i>St</i>	<i>B</i>	<i>Sug</i>	<i>Poy Wg</i>	<i>Lo Sedy Co</i>	<i>Hawk Bk</i>	<i>Lt No</i>	<i>Mod Eard</i>	<i>Ylgs</i>
4..	Spotted Breasted Beasy Yellow,	Low Comb,	Seamed to Left over Norel,	Right Norel,	Tipped Gilled Left,	Green Legs,	Right Middle Nail Whitest		3 12 2
	<i>Spd</i>	<i>B Bea</i>	<i>Yel Lo Co</i>	<i>Send to Lt ovr No</i>	<i>Rt No</i>	<i>Tipd Gild Lt</i>	<i>Glgz</i>	<i>Rt M N Wts</i>	
5..	Spotted Breasted Red,	Shit Wing,	High Comb,	Curled Forward,	Little Tipped Gilled,	Green Legs,	Punched Out Right,	Large and Striped Nails	3 13 1
	<i>Spd</i>	<i>B R</i>	<i>Sug</i>	<i>Ht Co</i>	<i>Curd Ford</i>	<i>Lt Tip Gild</i>	<i>Glgz</i>	<i>Pund Ot Rt</i>	<i>Larg & St Nls</i>
6..	Streaked Breasted Dark Red,	Low Broad Comb,	Curled over Norel,	Fowl Cut Largest Right,	Green Legs,	Both Right Duck Footed,	Right Middle Nails Whitest		3 13 1
	<i>St</i>	<i>B Dk R</i>	<i>Lo Brd Co</i>	<i>Curd ovr No</i>	<i>Fl Ct Lrgst Rt</i>	<i>Glgz</i>	<i>Bt Rt Dk Fld</i>	<i>Rt M Nls Wts</i>	
7..	Streaked Breasted Red Shit Wing,	Poyle Wings,	Low Broad Comb,	High over Left Norel,	Fowl Cut,	Mouldy Eared Left,	Yellow Legs,	In Right Out Left, Middle Nail Left Whitest	3 12 2
	<i>St</i>	<i>B R</i>	<i>Sug</i>	<i>Poy Wgs</i>	<i>Lo Brd Co</i>	<i>Hi ovr Lt No</i>	<i>Fl Ct</i>	<i>Mo Eard Lt</i>	<i>Ylgs</i>
8..	Spotted Breasted Turkey Wing Yellow,	Low Sedy Comb,	Mouldy Eared,	Yellow Legs,	Out Left,	Middle Nails Whitest			3 13 3
	<i>Spd</i>	<i>B Turk Wg</i>	<i>Yel Lo Sedy Co</i>	<i>Mo Eard</i>	<i>Ylgs</i>	<i>Ot Lt</i>	<i>M Nls Wts</i>		
9..	Brick Breasted Red,	Low Broad Comb,	High Back,	Striped Back,	Blue Legs,	Both Right,	Duck Footed Right,	Right Middle Nail Whitest	3 14 0
	<i>Bk</i>	<i>B R</i>	<i>Lo Brd Co</i>	<i>Ht Bk</i>	<i>Str Bk</i>	<i>Bth Rt</i>	<i>Dk Ftd Rt</i>	<i>Rt M N Wts</i>	
10..	Streaked Breasted Birchen Yellow Duck,	Low Comb,	Tipped Gilled Largest Left,	Right Norel,	Yellow Legs,	Middle Nail Right Whitest			3 13 1
	<i>St</i>	<i>B Bir</i>	<i>Yel Dk Lo Co</i>	<i>Tipd Gild Lrg Lt</i>	<i>Rt No</i>	<i>Ylgs</i>	<i>M N Rt Wts</i>		
11..	Black Breasted Red Shit Wing,	Low Broad Comb,	Curled Forward,	Daw Eyed,	Willow Legs,	Punched Out Right,	Dark Nails		3 9 2
	<i>B</i>	<i>B R</i>	<i>Sug</i>	<i>Lo Brd Co</i>	<i>Curd For</i>	<i>Daw Eyd</i>	<i>Fl Ct</i>	<i>Wit Lgs</i>	
12..	Black Breasted Red Shit Wing,	Peak Back,	Little Fowl Cut,	Willow Legs,	Dark Nails				3 10 1
	<i>B</i>	<i>B R</i>	<i>Sug</i>	<i>Pk Bk</i>	<i>Lt Fl Ct</i>	<i>Wit Lgs</i>	<i>Dk Nls</i>		
13..	Large Streaked Breasted Red Shit Wing,	High Comb leaning to Right,	In Middle,	Fowl Cut Ears on,	Left Gill Fresh Cut,	Yellow Legs,	Punched Out Right,	Dark Nails	3 14 1
	<i>Lrg</i>	<i>St B R</i>	<i>Sug</i>	<i>Hi Co</i>	<i>Len to Rt</i>	<i>In M</i>	<i>Fl Ct Ears on</i>	<i>Lt Gill Fresh Ct</i>	<i>Ylgs</i>
14..	Ginger Breasted Orange Ginger,	High Comb,	Curled over Norel,	Tipped Gilled Most Left,	Daw Eyed,	Green Legs,	Buttoned Out Right,	Punched In Left, White Nails	3 13 3
	<i>Gin</i>	<i>B O</i>	<i>Gin Hi Co</i>	<i>Curd ovr No</i>	<i>Tipd Gild Most Lt</i>	<i>Daw Eyd</i>	<i>Glgz</i>	<i>Btd Ot Rt</i>	<i>Pund In Lt</i>
15..	Streaked Breasted Red Wing Poyle,	Broad Comb,	Scorred over Norel,	Thick Backed,	Right Eye,	White Legs,	Both Right, White Nails		3 13 0
	<i>Std</i>	<i>B R W</i>	<i>Poy Brd Co</i>	<i>Serd ovr No</i>	<i>Thk Bk</i>	<i>Rt Ey</i>	<i>Wlgs</i>	<i>Bth Rt</i>	<i>W Nls</i>
16..	Spotted Breasted Red Poyle,	Little High Comb,	Leaning to Right,	Mouldy Eared,	Largest Right,	Carp Legs,	In Right, Out Left,	Middle Nail Left Shortest, Right Heel Gouty	3 12 3
	<i>Spd</i>	<i>B R</i>	<i>Poy Lit Hi Co</i>	<i>Len to Rt</i>	<i>Mo Eard</i>	<i>Lrg Rt</i>	<i>Cls</i>	<i>In Rt, Ot Lt</i>	<i>M N Lt Shs</i>
17..	Starling Breasted Silver Duck Wing,	High Helmit Comb,	Fowl Cut Large,	Yellow Legs,	Fours in Feet,	Middle Nail Right Whitest			3 13 1
	<i>Star</i>	<i>B Sil</i>	<i>Dk Wg</i>	<i>Hi Helmt Co</i>	<i>Fl Ct Lrg</i>	<i>Ylgs</i>	<i>4 in Feet</i>	<i>M N Rt Wts</i>	
18..	Snock Breasted Cursted Poyle,	Low Comb,	Curled over Norel,	Little Fowl Cut,	Green Legs,	Buttoned Both Out,	Dark Nails		3 11 3
	<i>Snock</i>	<i>B Cud</i>	<i>Poy Lo Co</i>	<i>Curd ovr No</i>	<i>Lit Fl Ct</i>	<i>Glgz</i>	<i>Bind Bth Ot</i>	<i>Dk Nls</i>	
19..	Spangle Breasted Red Spangle,	High Comb,	Leans to Right Backward,	Fowl Cut Large,	Willow Legs,	Both Right,	Middle Nail Right Short		3 11 1
	<i>Spng</i>	<i>B R</i>	<i>Spng Hi Co</i>	<i>Len to Rt Bk</i>	<i>Fl Ct Lrg</i>	<i>Wit Lgs</i>	<i>Bth Rt</i>	<i>M N Rt Short</i>	
20..	Dun Breasted Beasy Red Dun Shit Wing,	Long Comb,	Peaked Backwards,	Fowl Cut,	Left Ear Mouldy,	Yellow Legs,	Out Right,	Middle Nails Whitest	3 12 2
	<i>Dn</i>	<i>B Bea</i>	<i>Dk Sug</i>	<i>Lo Co</i>	<i>Pk Bk</i>	<i>Fl Ct</i>	<i>Lrg</i>	<i>Ylgs</i>	<i>Ot Rt</i>
21..	Pheasant Breasted Birchen Yellow,	High Comb,	Clean Cut,	Green Legs,	Fours in Feet,	Middle Nails Whitest			3 12 3
	<i>Phat</i>	<i>B Bir</i>	<i>Yel Hi Co</i>	<i>Cn Ct</i>	<i>Fl Ct</i>	<i>Glgz</i>	<i>4 in Feet</i>	<i>M Nls Wts</i>	
22..	Black Breasted Brush Wing Black,	High Comb,	Strawberry Forward,	Fowl Cut,	Ears On,	Tipped Gilled,	White Legs,	Both In, White Nails	3 13 3
	<i>B</i>	<i>B B</i>	<i>Wg Bk</i>	<i>Ht Co</i>	<i>Straw Ford</i>	<i>Fl Ct</i>	<i>Ea On</i>	<i>Tipd Gild</i>	<i>Wlgs</i>
23..	Black Breasted Silver Duck Wing,	Long Comb,	Peaked and Glazed Backward,	Left Norel,	Mouldy Eared Right,	Carp Legs,	Both Right, Out Left,	Middle Nails Whitest	3 14 3
	<i>B</i>	<i>B Sil</i>	<i>Dk Wg</i>	<i>Lt Co</i>	<i>Pk & Glad Bk</i>	<i>Lt No</i>	<i>Mo Eard Rt</i>	<i>Cigs</i>	<i>Bth Rt</i>
24..	Black Breasted Light Shouldered Birchen Yellow,	High Comb,	Curled over Norel,	Tipped Gilled Right,	Yellow Legs,	Both Out,	Dun Nails		3 15 2
	<i>Lite</i>	<i>Shld Bir</i>	<i>Yel Hi Co</i>	<i>Curd ovr No</i>	<i>Tipd Gild Rt</i>	<i>Ylgs</i>	<i>Bth Ot</i>	<i>Dn Nls</i>	
25..	Ginger Breasted Red Shit Wing,	Low Broad Helmit Comb,	Right Eye and Norel,	Little Fowl Cut,	Milk and Water Legs,	Buttoned Out Right,	Middle Nails White, others Dark		3 15 3
	<i>Gin</i>	<i>B R</i>	<i>Sug</i>	<i>Lo Brd Holo Co</i>	<i>Rt Ey & No</i>	<i>Lt Fl Ct</i>	<i>Mlk & Wtr Lgs</i>	<i>Bind Ot Rt</i>	<i>M Nls W others Dk</i>
26..	Spotted Breasted Beasy Red,	Long Comb,	Fowl Cut,	Frog Mouth,	Carp Legs,	Both Right,	Punched Out Left,	White Nails	3 15 1
	<i>Spd</i>	<i>B Bea</i>	<i>R Lo Co</i>	<i>Fl Ct</i>	<i>Frg Mth</i>	<i>Cls</i>	<i>Bth Rt</i>	<i>Pund Ot Lt</i>	<i>W Nls</i>
27..	Little Spotted Breasted Light Shouldered Yellow Duck Wing,	High Strawberry Comb,	Yellow Legs,	Fours in Feet,	White Nails,	Right Heel Larked			4 0 2
	<i>Lit</i>	<i>Spd</i>	<i>B Lite</i>	<i>Shld</i>	<i>Yel Dk Wg</i>	<i>Hi Straw Co</i>	<i>Ylgs</i>	<i>4 in Feet</i>	<i>W Nls</i>
28..	Spotted Breasted Brush Wing Red,	Low Comb,	Curled over Left Norel,	Mouldy Ears,	Yellow Legs,	In Right,	Out Left,	White Nails	4 0 2
	<i>Spd</i>	<i>B Brsh</i>	<i>Wg R Lo Co</i>	<i>Curd ovr Lt No</i>	<i>Mo Ers</i>	<i>Ylgs</i>	<i>In Rt</i>	<i>Ot Lt</i>	<i>W Nls</i>
29..	Spotted Breasted Light Shouldered Yellow Duck Wing,	Comb and Ears on,	Gills Fresh Cut,	White Legs and Nails					4 1 1
	<i>Spd</i>	<i>B Lite</i>	<i>Shld</i>	<i>Yel Dk Wg</i>	<i>Co & Ers on</i>	<i>Gils Frsh Ct</i>	<i>Wlgs</i>	<i>& Nls</i>	
30..	Black Breasted Silver Duck Wing,	Long Comb,	Strawberry Forward,	Bump Backed,	Both Eyes and Left Norel,	Green Legs,	and Black Nails		4 0 3
	<i>B</i>	<i>B Sil</i>	<i>Dk Wg</i>	<i>Lo Co</i>	<i>Straw Ford</i>	<i>Bpd Bk</i>	<i>Bth Eys & Lt No</i>	<i>Glgz</i>	<i>& B Nls</i>

Both Heels Gouty	lb. oz. qr.	
<i>B Fels Gouty</i>	4 0 2	
h Right, Dark Nails	4 0 1	
<i>h Rt Dk Nls</i>		
ared, Striped Nails	4 2 3	
<i>ard St Nls</i>		
oulded Ears, Yellow Legs, Middle Nails Whitest	4 0 3	
<i>Mo Ers Ylgs M Nls Wts</i>		
ek Toes, In Middle at the Nails	4 3 0	
<i>ek Tos In M at the Nls</i>		
Legs, Both Out, Striped Nails	4 2 1	
<i>lgs Bth Ot St Nls</i>		
e, White Legs and Nails	4 3 3	
<i>Wlgs & Nls</i>		
Out Right, White Nails	4 3 3	
<i>Ot Rt W Nls</i>		
t, Button In Left, Dark Nails	4 2 3	
<i>t Btnd In Lt Dk Nls</i>		
Heel Broke, Middle Nails Whitest	4 3 0	
<i>Heel Brk M Nls Wts</i>		
ite Legs, Middle Nail Left Whitest	4 9 0	
<i>Vlgs M N Lt Wts</i>		
	4 9 3	
	4 1 3	
Out Nail, Left Twisted	4 2 1	
<i>Ot N Lt Twstd</i>		
	4 1 1	
l Nails	4 2 3	
<i>Nls</i>		
ht Short	4 3 3	
<i>ht Sht</i>		
Right Crooked	4 2 3	
<i>Rt Crkd</i>		
ped Nails	4 9 1	
<i>t Nls</i>		
	4 9 2	
White Nails	4 3 1	
<i>W Nls</i>		
ight, White Nails	4 2 3	
<i>Rt W Nls</i>		
	4 4 3	
s Striped	4 6 3	
<i>St</i>		
	4 2 1	
	4 7 2	
d	4 9 0	
<i>d</i>		
ails	4 2 1	
<i>Vls</i>		
	4 2 1	
Nails	4 6 2	
<i>Nls</i>		
th Out, Buttoned In Right, Slit In Left, In Nails Striped, Others White	4 8 3	
<i>th Ot Btnd In Rt Slit In Lt In Nls St Others W</i>		

divided between them,) as their compensation for the fortnight or three weeks they are engaged in feeding the cocks.

At the hour previously agreed on, the bags containing the cocks are brought into the pit by the feeders, or whoever they may appoint: they are there received by persons called the setters-to, whose qualifications depend upon a quick eye, a light hand, and agile heel; without the whole of which, celebrity can never be acquired in their way. The cocks being taken from the bags, are most scrupulously compared in feather and marks with the original description entered in the match-bill on the day of weighing; if there should prove the most trifling deviation from which, a mistake, wilful or accidental, is supposed to have taken place, and no progress whatever is made in fighting, till it is completely rectified, and the cause done away. This scrutiny is seriously critical, and made by the feeders, who attend minutely to the match-bill and marks of each other's cocks; which ceremony gone through, and admitted to be right, the feeders retire from the centre of the pit, becoming spectators; and the setters-to are then the sole possessors with the cocks in hand. In this state they are shewn to each other "beak to beak;" and if they "show fight," they are (for form's sake in the first battle only) given into the hands of the makers (called masters) of the match, who are situate in the lowest circular seat opposite to each other, and they giving the cocks a set-to toss upon the mat, the battle begins amidst clamours indescribable, and offers of bets innumerable, according to the pecuniary sensations, opinions, and predictions of the different parties interested in the event, constituting a scene very far beyond the power of description, and which must be seen to be perfectly understood.

There are certain rules and laws of custom to be observed in fighting; the most material of which it is necessary to explain. When once the cocks are pitted, neither of the setters-to have the privilege to touch or handle his cock, so long as they continue to fight, unless their weapons hang in the mat, they are entangled with each other, are got too close to the edge of the pit, or have left off fighting while the umpire or law-teller can count forty; when, in either of these cases, each setter-to instantly handles his cock, bringing them beak to beak in the middle of the pit: if one cock has refused to fight

while the telling forty took place, his adversary, who made the last fight, with either heel or beak, is said to have the first law in his favour. When brought beak to beak, and set on their legs, if the cock who did not fight while the forty was telling, continues to decline fighting, the setter-to of his adversary (or umpire, if there is one) proceeds to tell ten; which being done, they are again handed, and brought beak to beak; if the same cock continues still unwilling or unable to fight, the ceremony of telling ten, and bringing beak to beak, at the conclusion of every ten, takes place, till it has been repeated ten different times, when the cock so refusing to fight has lost his battle. But should he fight during any part of the law, (even in telling the last ten,) what has been told is of no effect, and the first ten must be begun again, whenever a fight is renewed. Instances sometimes happen, when the cock who has the long law in his favour, retreats from the cock seemingly beaten, and in his turn has the law going on against him; so that the cock who fights last has the law in his favour, till one side or other is counted out.

If, during a battle, (either by long fighting or a cut down blow,) any person offers to bet ten pounds to a crown, or throws his hat, glove, or handkerchief, into the pit, which is the same thing, and so understood, though not a word is spoken, the teller immediately begins to tell forty in a deliberate manner, which being done, he proclaims, "ten pounds to a crown is betted; will any body take it? will any body take it?" No reply being made, the battle is won by the cock upon whom the odds were offered. On the contrary, should the bet be accepted in words, or a handkerchief, hat, or glove, be thrown into the pit, during the time of so telling the forty, it is an acceptance of the ten pounds to a crown offered, and the cocks are instantly handed, beak to beak, in consequence. If a cock, having the law in his favour, dies before the long law is told out, his adversary wins the battle, although he did not fight within the law; for there cannot be a greater criterion of victory, than having killed his opponent.

When the cocks are first shewn in the hands of the setters-to, and either refuses to face, that is, to fight, it is deemed no battle, upon the equitable principle, that no man can lose where he has no chance to win. There are frequently disputes

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h Right, Dark Nails	4 0 1
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<i>ard St Nls</i>	
oulded Ears, Yellow Legs, Middle Nails Whitest	4 0 3
<i>Mo Ers Ylgs M Nls Wts</i>	
ck Toes, In Middle at the Nails	4 3 0
<i>ck Tos In M at the Nls</i>	
Legs, Both Out, Striped Nails	4 2 1
<i>lgs Bth Ot St Nls</i>	
e, White Legs and Nails	4 3 3
<i>Wlgs & Nls</i>	
Out Right, White Nails	4 3 3
<i>Ot Rt W Nls</i>	
t, Button In Left, Dark Nails	4 2 3
<i>t Btnd In Lt Dk Nls</i>	
Heel Broke, Middle Nails Whitest	4 3 0
<i>Eel Brk M Nls Wts</i>	
ite Legs, Middle Nail Left Whitest	4 9 0
<i>Vlgs M N Lt Wts</i>	
	4 9 3
	4 1 3
Out Nail, Left Twisted	4 2 1
<i>Ot N Lt Twstd</i>	
	4 1 1
Nails	4 2 3
<i>Nls</i>	
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ped Nails	4 9 1
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White Nails	4 3 1
<i>W Nls</i>	
ight, White Nails	4 2 3
<i>Rt W Nls</i>	
	4 4 3
s Striped	4 6 3
<i>St</i>	
	4 2 1
	4 7 2
d	4 9 0
<i>d</i>	
ails	4 2 1
<i>Vls</i>	
	4 2 1
Nails	4 6 2
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between the setters-to respecting which cock is in for the law in his favour, during the changes which sometimes happen in setting-to during the process of telling the long law; as well as disputes amongst the spectators concerning bets made, and misunderstandings during the heat of battle; to prevent litigation, and long-standing animosity, it is an invariable rule, that all disputes are to be decided by a majority of the pit; but in all pecuniary altercations, both parties deposit their money before the question is asked, in proof of their readiness to acquiesce in the decision when made. Persons making bets in a pit, which they were afterwards unable or unwilling to pay, were formerly drawn up in a basket by pullies, and suspended during the play; that ceremony, however, is now altogether dispensed with, the aggressor being instantly turned out of the pit, with a variety of cuffs and kicks plentifully bestowed upon him in the gauntlet of his escape.

COCK'S WALK is the place to which a game cock is removed, from the place where he was bred, (and where he walked under his sire,) to the spot where he is to remain till taken up to fight; this is called his walk, of which he is the master, not walking under any other cock. They are commonly sent out to walk at six or seven months old, previous to which they have their combs and gills taken off, and are marked in the eyes, norrils, and feet.—At this age they are called chickens; when turned of a year old, they are termed stags; and at two years old, cocks.

COFFIN-BONE. This bone is situate at the lower extremity of the foot, deposited in the membranous mass with which the box (or coffin) of the hoof is lined, and is in nearly the shape of the hoof itself: in the centre of the coffin-bone is a concavity, into which is inserted the inferior part of the coronary bone, supported by the nut bone behind: upon the superior part of the coronary bone (that is just above the line said to be "between hair and hoof") is lodged the lower part of the fetlock bone, its upper part articulating with the fetlock joint.—Injuries are very frequently sustained by holes in the road, or cavities in the pavement, into which a part, or the whole, of the foot getting, ligamentary twists or distortions happen to the lower joints. Too much pains cannot be taken in accurately ascertaining the exact seat of lameness, particularly in these parts, as a great number of horses are annually blistered

and fired by much too hastily, and upon parts where no lameness has ever been.

COFFIN-JOINT, the joint situate below the fetlock, and just above the union of hair and hoof; this is the part universally known by the term coffin-joint; but, in fact, it is not in reality so; for this being formed by the upper part of the coronet with the lower part of the fetlock-bone, leaves the whole coronary bone between the spot described and the coffin-bone. The coffin-joint is buried in the body of the hoof, and is formed by the convex junction of the coronary bone with the concave part of the coffin-bone, as explained in the article preceding.

COLD. See CATARRH.

COLIC, or **GRIPES**, are of two kinds: 1st, the spasmodic; 2nd, the inflammatory. The first proceeds from catching a slight cold in the bowels when these may be foul, or from drinking cold water; the second, or inflammatory, is brought on from the same two causes, more severely incurred, as well as from costiveness and consequent heat, terminating in inflammation of the bowels; as does tumour also.

The first kind of gripes is cured by one ounce of the *philonium romanum*, and by repeating it, if occasion be, with the help of oatmeal gruel in any quantity; or, the gruel with any other cordial than the *philonium*, which is thus compounded:—

Take Purified opium,	3 drachms
Ginger,	6 drachms
Jamaica pepper powdered,	1 ounce
Caraway seeds in powder,	6 drachms
Syrup of poppy, strong,	3 ounces;

mix in the opium with the warm syrup, minutely, and add the three powders. Divide into five or six doses. ** This is the *opiate confection* of the shops.

In the second kind of gripes, or natural inflammation, copious bleeding is proper; which should be repeated if necessary, that is, if the pain and pulse appear to be very violent. The excrement should be kept raked away as it falls into the rectum, or straight gut. Sweet oil should be given, 1½ pint, inwardly, to relax the intestines; and then cooling laxative salts, every four hours, to unload the same; for which purpose, also, any of the neutral salts may be employed, as Glauber's salts, *sal catharticum*, with soluble tartar, or tartarized kali; and oil given by way of clysters will also be of use in this case. Here, saltpetre is not so proper, because it acts as a diuretic, rather than a laxative.

Now, this last kind of colic, proceeding

as it does from costiveness, or from a severe cold in the bowels, causing inflammation of the bowels, is what the writers and farriers indiscriminately call "the strangullion," or "twisting of the guts," for such they always suppose it to be. Yet this never happens originally, though it may be effected by some other misfortune. The plain truth is, that certain particles or pieces of dung, or excrement, in passing through the guts, become hard or indurated from an excessive degree of dryness, or heat in the system; whence it comes to pass, that the space of the gut where it rests is stretched and enlarged. Hence follows a narrowness or stricture round the adjacent part of the same, so that the excrement cannot pass along. This occasions an inflammation; and the horse, if not soon relieved by cooling and relaxing medicines, dies of a mortification in such part. Another cause may be inflammation of some particular part of the intestines, where the excrement may not be so lodged; that is to say, a tumour or tubercle on the mesentery.

Thus you see how necessary it is carefully to discriminate betwixt those different kinds of colic, which will be best done by observing whether there be fever attending it or not; to ascertain the existence of which, or not, the pulsation of the artery is to be consulted, which may be felt on the hinder part of the fore leg, either above or below the knee of the horse; increased action thereof being indicative of inflammation, which is ever accompanied by cold ears and cold legs. Moreover, the horse in this last case will be frequently looking back to his flank, by which he points out in some measure the seat and nature of his disease, though not with absolute certainty; for the same symptoms will attend the horse afflicted with the stone or gravel, which, by the bye, I believe, happens but seldom; but much greater certainty may be gathered even with respect to the difference of these complaints, by paying due attention to the nature and dryness of his dung or excrements, or his frequent attempts and motions to void his urine. But, whichever of these is the disease, thus far you will be right, that the proposed remedies will be proper in both complaints alike.

COLOUR OF HORSES. It is a disputed point amongst veterinarians, even of the present day, whether the colour of a horse, or of any other domestic quadruped, is any indication of excellence or of defect. The celebrated Gibson, whose

experience and knowledge of the horse cannot well be disputed, observes, that not only much of the beauty of a horse depends upon his being well marked, and of a good colour, but also that his good or bad properties are sometimes denoted by his being of this or that colour, or his having such and such marks. Though, indeed, (he further adds,) these appearances are not always to be depended on, for daily experience teaches us, that, however true these observations may prove in the main, yet we often meet with good horses that are very ill marked, and of bad colours; and sometimes very bad horses that have almost all the beauty that colour and marks can give them. He concludes, however, that it is necessary for those who have any concern among horses to be more or less acquainted with such things: for this reason we shall here cite his opinions.

The chief and principal colours are the bay, the chesnut, the black, the brown, the dappled grey, and sorrel. For the white is for the most part originally grey, which turns sooner or later into white, as his limbs happen to be lighter or darker; for the light grey colts, that grow the soonest white, have generally little or no dark mixture about their joints.

1. The *bays*, perhaps so called from their resembling the colour of dried bay leaves, are of various degrees, from the lightest bay to the dark, that approaches the nearest to the brown, but always more shining and gay. The bright bay is an exceedingly beautiful colour; because a bright bay horse has often a reddish dash, with a gilded aspect, his mane and tail black, with a black or dark list down his back. Also the middle colours of bay have often the black list, with black mane and tail. And the dark bays have almost always their knees and pasterns black; and we meet with several sorts of bays that have their whole limbs black from their knees and hocks downwards. The bays that have no list down their backs are for the most part black over their reins, which goes off by an imperceptible gradation from dark to light towards the belly and flanks. Some of these incline to a brown, and are more or less dappled. The bay is one of the best colours, and horses of all the different kinds of bays are commonly good, except when accidents happen to spoil them while they are colts.

2. The true *chesnut* is generally of one colour, without any shade or gradation: his hairs are often compounded of three

colours, the root light, the middle dark, and the points of a pale brown, which make an agreeable mixture, and differ from the sorrel in this, that the mixture of the chesnut is not so distinct and apparent to the eye, especially at any distance, because the hairs of the sorrel are often of several colours intermixed, wherein the red or fox colour generally predominates. Many chesnut horses have their manes and tails very near the colour of their bodies; many of them have but little white about their legs, and frequently no mark, whereas the sorrel have generally a good deal of white about their legs and pasterns; many of the sorrels have a large blaze, and not a few are bald all over the face, while their manes and tails are sandy or of a flaxen colour. Both the chesnut and sorrel are of degrees darker and lighter, and there are some chesnut horses with manes and tails as light as the sorrel, and the hair all over their bodies approaching towards a fallow colour, only with a sort of beautiful chesnut stain.

There are many very good horses, both of the chesnut and sorrel; but the latter, when they have much white about their limbs, are apt to be more faulty in their feet than those that are more uniform in colour, and they are also apt to be more tender in constitution. When a chesnut horse happens to be bald or party-coloured, or to have white legs, which may be owing to some extraordinary affection in the dam, or some improper mixture in the breed, such horses are not very agreeable, for chesnuts are the least tainted in their colour of any other, and most people prefer the chesnut to the sorrel, both in point of beauty and goodness.

3. The *brown* is a colour not altogether so beautiful as the bay or chesnut. Browns have also their degrees, some being light, and some very dark. They have almost all black manes and tails, and often their joints are black, though not so shining as the bays, but rusty. Almost all brown horses grow gradually lighter towards their bellies and flanks, and many are light about their muzzles. The most beautiful are those that happen to be finely dappled, for the plain brown are esteemed more ordinary. Many of them are coarse, but strong and serviceable, fit for draught, for burden, or for the wars.

4. *Black* horses are very beautiful, especially when they are of a jet shining black and well marked, and have not too much white. For, as a great deal of

white, especially when it spreads round the eyes, and a great way up their legs, adds nothing to their beauty, so neither does it add any thing to their goodness. The English black horses have more white than the black horses of any other country. Gibson says, he knew many fine Spanish horses, some Arabs, and one Egyptian (the only one he ever saw of that country), all without any white. The Dutch and Danish horses seldom have much; though he thinks a star or blaze, and sometimes a white muzzle, and one or more of the feet tipped with white, beautiful, and no diminution to the goodness of a horse. On the contrary, some think these an addition, from an opinion that horses without mark are generally stubborn and ill conditioned. Some black horses have brown muzzles, are brownish on their flanks and between their hips. These are often called black browns, as they are not a perfect black, but approach near to the colour of a tawny black hound; some are of a lighter colour about their muzzles, and are called mealy-mouthed horses; and of this sort are the pigeon-eyed horses, which have a white circle round their eye-lids, and their fundamentals often white. But, after all, he says he found many of the English black horses, especially of the largest breed, not so hardy as the bays and chesnuts, &c. Those that partake most of the brown are generally the strongest in constitution.

5. The *greys* are so diversified in colour, and so common and well known, that it would be a needless labour to describe them particularly. The dappled greys are reckoned the best, and are to be found in most parts of the world. The silver grey is extremely beautiful, and many of them very good. The iron grey, with light mane and tail, have also a gay appearance, but are not accounted the most hardy. The light plain grey and the pigeon-coloured grey soon change and turn white, as all other greys do in process of time. The dappled grey keeps his first colour the longest, which is a sign of strength and durability. Some of them have become pretty old before they have changed, and never so perfectly as not to retain some vestiges of their native colour. The nutmeg grey, where the dapples and other mixture participate of the bay or chesnut, is not only exceedingly beautiful, but most of the nutmeg-coloured horses turn out very hardy and good.

6. The *roans* are a mixture of various

colours, wherein the white predominates. Many of them turn out much better than they appear to be. Some are exceedingly good, and those that have a mixture of the bay or nutmeg colour are sometimes tolerably handsome and beautiful. The roans have a general resemblance to each other, and yet a very great diversity: some are strewn over with white as if they were powdered or dusted with flour, and some as if milk had been spilt all over their buttocks; others as if they were powdered with soot or lamp-black, and some as if their faces had been dipped in a bag of soot. Many of these are good road horses and hardy.

7. The *strawberry* approaches pretty near the roan in some things, but in most resembles the sorrel, being often marked with white on his face and legs, which we seldom observe perfect without mixture on the roan. The bay mixture in the strawberry is also of the highest colour, and makes him look as if he was tintured with claret; some of this sort are both handsome and good, but not very common.

8. The *fallow colour*, the *dun*, and the *cream colour*, have all one common resemblance, and most of them have a list down their backs, with their manes and tails black. The mouse-dun and the lead colour are the most ordinary; and, because the list down their backs goes off with a soft imperceptible shade, like what we observe on the back of an eel, are from thence called eel-backed. Few people choose dun horses, though horses of this colour often prove useful in the hands of country people. The fallow and cream-coloured horses are many of them both good and beautiful. Those are generally the best, that, besides their manes and tails, have their muzzles and their joints black or chesnut, and their colour a little inclined to chesnut. Gibson asserts, that he has known some with manes and tails of a *silver* colour, not only extremely beautiful, but very good and useful. The fallow and tawny duns are often shaded with a darker colour, and sometimes faintly dappled, and look very fine in a set, when they happen to be well matched.

There are many other colours of horses produced out of the great diversity that are to be met with every where, which would be endless and of no great use to describe, as the *peach colour*, *starling*, and *flea-bitten*, &c. and all these participate more or less of some of the colours already mentioned. Sometimes horses turn out

very finely spotted, some like leopards or tigers, some like deer, with black, red, yellow, or other gay colours; and when these happen also to be comely in shape and appearance, they are generally reserved as presents for princes, or other great men, though perhaps more for their singularity than any superior excellence in them. Others again are so disagreeably diversified in their colours, and in such a remarkable manner, that they are usually condemned to the meanest drudgery.

Though we have stated the opinions of Gibson on this subject at some length, we shall here add those of a more modern writer, as being somewhat in opposition to the former.

In his treatise on horses, Mr. John Lawrence adopts an adage of the noted Bracken, who says, that "a good horse is never of a bad colour." "Modern light and experience, says Mr. Lawrence, have been happily employed in detecting and exploding the theoretic whimsies of antiquity upon almost all subjects; among the rest, upon that of attributing this or that good or evil quality or temperament to the colour of a horse. All that I am warranted in saying, from my own observation, is, that I have seen more bad horses of all kinds among the light bays, with light-coloured legs and muzzle, than amongst any other colours; and the most good saddle and coach horses among the common bays, with black legs and manes, and the chocolate browns. This, in all probability, has been accidental."

COLT, in the general sense, and immediate acceptation of the term, implies a produce from horse and mare, without adverting for the moment to either the masculine or the feminine gender; but in a more contracted point of view, (as well as in just and sporting-like phraseology,) it is meant to convey an unequivocal idea, that the produce being a colt, is really so, (that is, a horse colt,) in contradistinction to the opposite gender, invariably called a filly. The bone and growth of a colt depend greatly upon two circumstances: the first, his being foaled late or early; that is, early in April or late in June; as well as the difference of his being weaned in November or March. Although it is admitted that colts (in the first year termed foals) running with the dam during the winter, will afford greater probability of size, bone, and strength, yet it is not at all times it can be complied with, unless in studs, where brood mares are

kept for that purpose only, and are left fallow (uncovered) for the season. When a mare has been covered with a foal at her foot, and is evidently in foal again, it should be an invariable rule to wean the foal in October or November, upon the palpable impossibility of giving suck to the one without an impoverishment of the other. Whether the colt is, or is not, weaned in either of those months, he should be well kept, and have daily supplies of corn and hay, as well as proper stable, shed, or shelter from the inclemency of the winter season. Upon the liberal keep of the two first winters, his size, growth, strength, and bone, entirely depend, and must be particularly attended to, lest repentance come too late; for it must be held in remembrance, that if a colt is small at two years old, from having been stinted in keep, there is not one in a hundred ever attains to good size by any additional exertions or expense, after the natural efforts for expansion have been so long retarded.

CONCUSSION OF THE FOOT.

For lameness arising from a sudden false step, which Lafosse calls concussion, and which he accounts for by the action of the coronary bone, then pushing the nut bone against the tendon, and compressing the same as between an anvil and a hammer, he has proposed two remedies, to remove the inflammation that ensues, and its bad consequences. One is to draw the outer sole; the other is to pare it, till it becomes thin and flexible, to bleed in the foot, and to use emollient poultices and fomentations round the foot and the coronet. Three-fourths of these cases, he says, are cured by such methods without drawing the sole; and I beg leave to add, that I believe all might be, if they were taken in hand immediately, and the crust or hoof were also pared down as low as possible, and rendered thin on every part; because the interior inflamed parts will be more relieved by external applications, when the thickness and stricture of the crust are removed, than when the outer sole only is pared away. But the great objection I have to drawing the sole, besides the cruelty of the operation, is, that nineteen horses in twenty (here in England I mean) have always been more or less lame afterwards, when used again, and that from contraction of the hoof occasioned by such operation. In either case a run at grass effects wonders.

CONDITION AND STABLE MANAGEMENT. The grand and principal

aim of a groom should be to put and keep his horses in what is termed condition—let us, therefore, consider what is condition. The word condition is variously applied to the horse, though widely different from what is here implied; for instance, we say a horse is in condition for sale—that implies he is in flesh, his legs clean and fresh, his coat decently fine, and perfectly sound; a horse may be all this, but not in condition for work. Another horse is said to be in good working condition; such might be said of a post-horse, that is of bare flesh, his joints enlarged, and puffed with wind-galls; yet this horse is capable of doing much work, and his being worked more than was requisite to keep him in condition, has put him out of condition. Condition, therefore, without an expletive, implies that perfect state of body and limbs, in which the whole system is the most vigorous, and capable of great exertion, if required; and this cannot be obtained or kept, without strictly adhering to three things, viz. proper food—proper grooming—and proper exercise; neither of these must be omitted, or injudiciously administered, for, like unto medicine properly administered, it does good, but is capable of doing much injury, if profusely taken or misapplied. Wine, in moderation, cheers the spirits and invigorates the body, but taken to excess, debilitates and weakens the constitution. The food of the horse, consisting only of hay and oats, and his drink only water, may be thought of such simple and inoffensive qualities, that only holding them from the horse would do him injury; but quality and quantity, proportioned to his habit of body or constitution, must be particularly attended to. If the quality be bad, it will make him foul, and will not afford the nutriment that clean wholesome food yields; if you feed too plentifully for the work or exercise the horse has, you will make him too fleshy and gross, and probably make him fly to pieces, as they term it; that is, he will become languid and dull from the blood being too thick—his stomach overcharged, and want of digestion, a fever ensues, or he breaks out in humours, mostly about the legs, or places most remote from the heart, where the thickness and foulness of the blood prevents a free circulation; again, if you disproportion your feed by giving him too much hay, this will cause him to drink freely, and run to belly; blowing him out with this description of food which affords the least

nutriment, a horse cannot endure much labour, and his wind will be distressed. Hay is the natural food for the horse, but not the most heartening to work upon ; therefore, a horse to be kept in condition, must be fed sparingly of hay, but that of the very best quality. To ascertain the quantity of hay a horse should have, depends much on his size, his constitution, the nature of his work, &c. ; hence, if a horse is put to fast work, his food should be of that quality that affords the most nutriment, lies in the smallest compass, and requires the least water to digest it, whereby the horse's wind will be the least distressed. If his work is hard, that is, continued for several hours, but not at any extraordinary speed, he may have more abundantly of hay, and even beans with his oats. Chaff, if sweet and good, is proper for some horses, such as have thin light carcases, and do not work hard ; to those which eat their corn greedily, without masticating it, and it comes away whole in their dung, a handful or two of good sweet chaff will be infinitely serviceable, as they will be obliged to chew and masticate the oats with the chaff, before they can swallow it. But though chaff is filling and cooling, it must be sparingly given to horses required to be in condition ; it fills a horse and makes him drink, by which he will appear plump and fair to the eye, but not in condition to work. It is most proper for slow draught horses.

To convey some idea of the quantity of hay that may be necessary for a nag horse, I shall say from eight to twelve pounds per day, according to size, constitution, &c. so that if we take the medium, about ten pounds will be found generally sufficient ; but large carriage horses will require more, we may say from thirteen to twenty pounds per day. Having mentioned an indefinite quantity, judgment, according to circumstances, must direct the rest. If your horses get lank and more hollow in the flank and quarters than you like, you must increase their usual allowance ; but, on the contrary, you must not, for the sake of having your horses fat and plump, supply them with too much hay and water ; a horse, when fat, is less fit for work than when lean and poor, provided that poverty was not occasioned by starvation, for a horse may be lean and poor by his work exceeding his keep ; or if a horse is stinted to an allowance that would keep him in a tolerable plight with only a little walking exercise, and then is put to work without an

increase of food, he will of course become thin ; but if you have not taken so much out of him as to exhaust his strength as well as his flesh, he will become nothing the worse for it ; increase his feed, and he will be better for work than before.

A horse that is full of flesh, though it may be in consequence of good and wholesome food, with good looking after and regular exercise, is, nevertheless, not in that condition that is most desirable ; for his flesh in this state is an incumbrance, were you to put him to an excessive day's labour before you had gradually reduced his flesh, it might throw him into a surfeit, or the like.

Good oats are the most hearty and best food for saddle horses, if given in proper quantities ; this must, in some measure, be proportioned to the work or exercise the horse has ; you may keep a horse in condition with three quarters of oats per day, provided his work is no more than exercise ; but if you work much, you must increase his feed proportionably and according to his constitution, some horses being much heartier feeders than others. If the horse is kept to constant hard work, you are in no danger of over-feeding him, if you were to give him as much as he could eat ; but high feed, without work, would, as I have observed, make him gross and unfit for work.

Beans are good and heartening food for working horses, but not proper for horses whose work is light, nor for horses who are required to go at speed ; they require more water to digest them, and swell, consequently cannot but distress the wind of horses required to go fast, and would be too gross for horses that have not plenty of work ; they may be allowed to horses who travel much at a moderate rate, draught horses and the like.

Water is usually given twice a day. Soft water is esteemed preferable to hard spring water ; hence, rivers and running streams are better than water pumped from a fine spring ; where such are not handy, springs that supply ponds, where the water gets impregnated and softened by a loamy or chalky soil, will be better than hard spring water. The quantity in this must be directed by circumstances, size of the horse, constitution, &c. some horses will not drink immoderately, and may be left to their own discretion, while others, if you let them, would swill, and render themselves incapable of work, causing immoderate perspiration, and dis-

stress of wind; such must be restrained to a moderate quantity, that they may be fit for work if they are instantly wanted; when the work is done for the day, water may be allowed in reason; but some horses will always require to be allowed, or they would drink greedily, and enlarge their bellies like unto cows; it is not a bad sign, nor should a horse be rejected on account of a large belly; it is a sign of good constitution and a good feeder, and nothing is more easy, with proper feeding and exercise, to bring it to proper shape. Half a stable-pail of water is generally sufficient for the morning; in the evening the horse may drink more plentifully, if his belly does not get over large, which is to be much attended to, for by that you are to regulate his allowance of hay and water.

The first thing to be done at going to stable, after casting your eye round to see if any horses are loose, cast, and the like, is to rack and feed. The judgment in racking, is to give the horse but little at a time, that he may eat it with an appetite, clearing his rack, and picking up his crumbs. If a horse leaves hay that is good and sweet, some cause must be assigned for it, and it should be examined into—sometimes the cats will foul the hay, and horses are very nice in their food when not kept scanty. If the horse appears to be in health, and the hay has not been blown on by other horses, but is fresh and sweet, I should judge he is too plentifully fed, leaving hay for the sake of oats; this should be guarded against; therefore, if you give hay that is good and clean in moderation, I would recommend to shorten his allowance of oats, to bring his stomach to the small quantity of hay that I recommend to be given. His morning's racking should be one quarter of his daily allowance, which, on the average, is about three pounds for his breakfast; for abundant feeding in the morning is not good; a horse cannot work pleasant to himself when over full, and therefore feed sparingly in the morning, lest you may want some exertion from him, and not suppose that a full belly will make him perform better; it is food which he has digested, the nutriment of which is then in his veins, that is to support him, and not what you cram into him at the time you want great exertion from him; a good horse, in proper condition, will not flag in twelve hours, if you require that much of him; and I have many times rode a horse for twelve hours, and on a

moderate computation suppose he has carried me a hundred miles, without (as it is termed) drawing bit; but this is not to be expected from every horse—none but thorough good horses, in proper condition, can undergo such extraordinary exertions.

The quantity of hay that is given, should be shaken to clear it from dust and seeds, and if it is very dry, as it will be, sprinkling it with water will make it more agreeable to the horse, and he will eat with better appetite. I have known several horses, when they perceive or think they are going out with the hounds, refuse to eat their hay and oats; this arises from an impatient and pleasing anxiety of mind—the pleasing prospect of the chase, of which most horses are fond, but some uncommonly so; but whether they disregard their food from this pleasing anxiety, as children will when the prospect of pleasure is arrived, or whether they refuse their food knowing they will be better able to gallop with an empty stomach, I won't pretend to determine; but certain it is, the horses that have come within my knowledge, never performed the worse for it; and I likewise noticed, they were not off their feed when the day was over: therefore, a horse refusing his food under such circumstances, I do not deem a bad prognostic. But it is very common for a horse to be off his feed after any great exertion, and this is by no means a desirable circumstance.

After having racked with hay, you next feed, as it is termed, that is, serving the oats. I proceed in the routine that is to be daily observed, for were I to treat of things out of this regular order, young hands might be studying what they should do, and what ought to be done first; and it is no uncommon thing to see some that have been in the stable employment for a length of time, not know which thing to do first, and occasion themselves trouble and loss of time by going wrong about things. Now in serving the oats, whatever is deemed a sufficient allowance for the horse for a day, whether it be three quarterns or a peck, one fourth of the quantity should now be given; as sweet and clean food is most agreeable to the horse, as well as most beneficial; carefully sift the corn from the dust, blow away the chaff, and pick out any thing you perceive is unfit or unpleasant, which will sometimes be found among them, frequently rat's dung

and cat's dung; then clean the manger with a small wisp of hay or straw, and throwing in the oats, spread them with your hand, to prevent the horse from taking too greedy a mouthful at a time, whereby he would be induced to swallow them without chewing.

While the horses are eating their corn, you begin to put the stable fair, or, on those days which you give clean litter, to muck out: you take the stable-fork, and begin with great care, for much injury has been done by heedlessly using the fork, first to throw all the dung off the litter clear out behind, then turning up the dryest and best of the litter under the manger, and the wet and mucky you turn out behind the horse with the dung, leaving a part, consisting of dry short litter, if it is not on the days of your entire mucking out, which are generally Wednesdays and Saturdays; at which times you turn up the best of the dry short litter, as a reserve for the bottom of the new bed, to be placed where the horse is most liable to wet and spoil litter; and then sweep all the dust, dung, and every thing that is offensive, away, and clear it out of the stable as expeditiously as you can; for the air in the stable is always impregnated with the effluvia from the dung, but more particularly at the times of cleaning and mucking out, which must be more injurious than beneficial to the horse.

The stable being cleared of muck and dung, next begin to clean your horses: this is a work that requires more knowledge and judgment than at first appears. The currycomb is the first thing applied, and great attention should be paid to its being applicable to the horse; some horses require much of the curry-comb, others none—this depends on the state the horse is in, time of year, &c. Horses whose coats are long and full of dust, such as are just taken up from grass, or those just come out of persons' hands that either do not know how, or do not take the pains, to keep a horse's coat clean and fine, will require the free use of the curry-comb, and the teeth and sharpness of the comb should be proportioned to the thickness, length, and foulness of the coat; while horses that have been kept in stable, and properly groomed, have their coats fine, thin, soft, and clean, requiring no other use of the curry-comb than merely to clean the brush, or occasionally to rub off any dung the horse may have lain on; the teeth of such comb should be re-

markably even and dull, not to scratch him.

These things being attended to, after stripping the cloaths off, you should then use the curry-comb, always beginning on the near side at the hind quarters, and using it in proportion to the length and foulness of the coat, that is, if the coat is fast on, long, full of dust and very filthy, you should use it very freely to loosen the coat, or the sweat that is dried and fast on the skin and roots of the hair, appearing like a white and saltish dust; but though I say you may use it freely for this purpose, you are not to expect you are to get it all out at once; it will be a work of time; and to attempt it by using the curry-comb too much, you would set the coat on end, open the pores of the skin, and give the horse cold, which would obstruct that imperceptible perspiration which is always discharging itself through the pores of the skin in horses like unto us, and then an ichor will issue from the obstructed pores, which will dry into small scabs, and the coat will stare; therefore, when I say use the comb freely, I mean comparatively to what you do with horses whose coats are fine and clean; over diligent grooms, who do not thoroughly understand their business, but take abundant pains to excel, if possible, are apt to run into this and the like extremes. Another thing to be observed is, that if it is the season the horse is changing his coat, (at which time it will come off very fast with the curry-comb) I would not advise you to use the comb more abundantly for the purpose of pulling off the coat, but let it have its time to come off; for to hasten the old coat off would subject the horse to cold, and that might occasion his new coat to grow long, which is not desirable; Providence has wisely so ordered things, that the horse's coat, if exposed to cold, shall grow long, and if you keep him warm, his coat will be the shorter.

Proceeding, then, to curry on the hind quarter, for the purpose of unmatting the hair, and loosening the dust, you descend down the quarters, particularly attending to rub off all dried dung, and minding not to injure or scratch the horse; the legs, below the houghs, are not to be touched with the curry-comb, unless there is any dung on the point of the hough, which you may carefully endeavour to loosen with the curry-comb; but the comb does not work pleasant on that part, and you must handle it very light, and with the greater

care. You next proceed to the fillets, back, loins, flank, belly, shoulders, arms, bosom, and neck, omitting no part that the curry-comb can be conveniently applied to; but tender places, or those thin of hair, need not be touched: observe, therefore, with the curry-comb, to begin at the hind quarters and finish at the head, which seldom need be touched with the curry-comb. Horses are not ticklish when their coats are full of the dust occasioned by the natural and imperceptible perspiration of the body, but as they get clean, and their coats short and fine, they are exceedingly ticklish, and you must be careful to stand in a secure place. After currying the near side, you next proceed with the off side; and here it becomes necessary to use your left hand, which, after a while, you will find most handy and convenient; this done, you next proceed to wisp off the dust you have raised by the curry-comb, and to rub and wisp those places which were not proper for the curry-comb to touch. For this purpose, you make a wisp of some half-worn straw, but a hay-band is better, which prepare for the purpose by half untwisting it; loosening it thus, you double it to about twelve inches in length, loosely twisting it together that it may not scatter away too fast, till you have it as thick as you can grasp; if it is dry and harsh, sprinkle it with water; this will make it work more pleasant, and the dust you intend to remove will thereby adhere to it, and not fly so much about. This wisp with care, if properly made, will serve you several times, and consequently, when one is worn out, you must make another.

You begin to wisp the horse at his head; taking the wisp in your right hand, you place your left hand on his nose, to hold the head steady, and wisp first his forehead over the eye, behind, and round the root of his ear, down his cheek, and particularly under his thropple, rubbing pretty hard, particularly if there is dried sweat and dust, which will be the case after having been out in hot weather and dusty roads.

The head being thus finished, you change the wisp into your left hand, and resting the right hand on the most convenient part of the horse to steady yourself while you apply the wisp, you change its situation according to the part you are rubbing, and begin at the top of the neck, and proceed downward to the shoulders, the under part of the neck, the bosom

particularly, between the fore-legs, down the arms, knees, sinews, and fetlocks; no part is to be left unwisped, but you must apply the wisp harder and most where it was not proper to use the curry-comb; you then proceed to the withers, and apply the wisp to every part of the body, but particularly under the elbow or arm, and again between the fore-legs and chest, for which purpose you take the wisp in the right hand, which done, you change again the wisp to the left, and rub under the brisket and belly, and from thence under the flank, the sheath, under and between the thighs as far as you can reach. This part is the most difficult with ticklish horses, but must not, on any account, be omitted; for this purpose, place your right hand on the horse's hip, put your left shoulder against him, and your head in his flank; in this position you rub as far as you can reach with the left hand, and support the horse, who will lean against you, and some will nearly lean their whole weight on you, they are so exceedingly ticklish, which, when you are used to, and find yourself secure from injury, you will disregard.

You next proceed to wisp the hind quarter, not omitting to wisp under the dock, and between the quarters; for this purpose, again take the wisp in the right hand, and take hold of the dock with your left, and place yourself as distant on the side of his quarter, as will not prevent your reaching to rub between his buttocks as far as the left hand rubbed under, so that none of these soft and ticklish places are left untouched; this done, you proceed down the thigh, hough, sinews, and fetlock, both inside and out, rubbing most where the curry-comb could not be applied, and particularly the joints and fetlocks; this finishes the near side, and then you proceed, in the like manner, with the off side, reversing the hand for that purpose; for in dressing or rubbing of horses a person must be as ready with one hand as the other.

When you have finished wisping the off side, carefully observing to leave no part untouched, and not sparing your labour on those parts not proper for the curry-comb to touch, (particularly if any dried sweat or dirt should, through negligence, have been left at his original cleaning, after having been out) proceed next to brush him over. You should commence with clearing your brush of dust, by rubbing it on the curry-comb, and begin in like manner with the brush

as you did with the wisp, first at the head, then taking the brush in the left hand and curry-comb in the right, proceed down the neck, brushing more particularly those parts where the dust is most likely to lodge, or most difficult to get out, such as the scurf of the neck next the head, down the scrag next the mane; these places are scurfy, and most difficult to get free from dust; therefore the brush on such places must be much applied backward and forward, always finishing the two or three last strokes the same way as the hair, to lay the coat smooth; every two or three strokes, you should clear the brush from dust, by rubbing it on the curry-comb; proceed in the same order from place to place as you did with the wisp, changing the hand to accomplish those places you find most convenient, as with the wisp, and particularly attending to brush where the curry-comb could not be applied; therefore, under the chest, between the fore-legs, the inside of the elbow or arm, and all nooks and corners, within the fetlocks, &c. must not be omitted; the loins, and where the hair feathers or divides different ways, as under the hip-bone, are difficult to get clean; much brushing and finishing strokes are necessary, to lay the coat smooth the respective way the hair grows; under the sheath, and places where no hair grows, you need not brush, the wisp and rubbing-cloth being sufficient for them. Having thus gone over first the near side, and then the off, with equal care and attention, especially those parts I have particularly mentioned, for I have noticed (being much among them) that many stable-men attend most to those places that are conspicuous to the eye, such as the full of the neck, the shoulders, and hind quarters—these places are least difficult, and always shine the most, and they do not fail to point out these to you, and say how well they look, which may satisfy some persons; but a judge will not be deceived by external appearances; he expects the parts not immediately in view to be equally attended to, and examines between the fore-arms, within the elbow, where there must be no gumminess or clammy foulness, but clean, smooth, and soft as satin. Under the flank, the sheath, between the hind quarters, must be free from dust, soft, and clean as not to soil a cambric handkerchief. But to proceed.

After the brushing (which causes much of the dust to be floating about, and a part of it will settle again on the horse), you should have a duster to wipe him

over before you put his cloaths on; some have a coarse flaxen cloth for this purpose, others a hair-cloth, and some a piece of flannel, or part of an old horse-rug—either may do, but cloths which may be the easiest washed, and kept for that purpose, are best; with this you wipe him all over, beginning as with the wisp or brush, at the head, and so proceeding to every part, which, being done, you put on his cloaths, before you finish with his head, mane, tail, and legs, that the horse may not chill or take cold while you are about them.

There are some pains to be taken in buckling a cloth on, for if not even and exact it appears unpleasant to the eye, and may be very uncomfortable to the horse; therefore, great exactness is to be observed in placing it; throwing it over too forward, take notice if it is equal on both sides and square; then go behind his hind quarters, and, with a hand on each side, draw it down to its proper situation, which lays the coat smooth with it; if you have a fillet cloth as well as cloth or sheet, you will of course place that first, and the sheet over that, but so much cloathing is not used as formerly, for it only subjects the horse the more to take cold; further, I am only treating at present on the method to be pursued in the hackney stable, and not in the racing and hunting-stable; therefore a single cloth or sheet, and in winter a breast-plate, is as much as is necessary.—Having placed it as directed, lay the pad of the roller on the middle and hollow of the back, and should it be what is termed a sheet, which is a cloth made to wrap over under the brisket, be mindful to wrap it smooth and tight, that when the roller comes to be buckled, it may not be in wrinkles, nor gape or hang in a bag, or open under the belly; to prevent which, as you pull the sheet tight under the belly, wrap it forward, that it may lie quite close to the belly; for if this is not attended to, it will not only be awkward to the eye, but unpleasant to the horse, admitting of cold wind instead of protecting against it, and the horse when he stales, will wet and make it filthy; wrapping it with care to prevent these inconveniences, bring your roller under, and buckle it moderately tight, that the cloth and roller may keep their places, but not so tight as to render the horse uncomfortable, and minding to pull and adjust every part, to lie close and free from wrinkles; should the cloth hang wide at the flank,

or the sheet gape, as I have cautioned against, under the belly, lay hold of the bottom of the cloth or sheet, just before the roller under the belly, and pull it forward, which will make it sit close to the flank and belly.

The cloth being properly on, loosen the horse's head, take off his stall-collar, and turn him about in the stall, to give his head and ears a complete rubbing and brushing, which was not so practicable with the stall-collar on; you now brush his head over in every part, particularly at the root of the ears, and under the thropple, and after with your dusting-cloth rub and wipe him well, then pull his ears through your hands, observing they are clean and soft, and moderately cool; you then take your mane-comb, and comb out his fore-top and mane; then with a water-brush or sponge wet the top or roots of the mane, and pass a small rug or cloth for that purpose over it, putting one end of the cloth over on the near side at the top, pull it over to the off side, pressing the mane, and hair next the root of the mane, down, to make it lie smooth, which, this being your continual practice, will not fail to do.

You must then buckle on his stall-collar, and comb his tail; lifting up his dock, wipe away any dirt or filth that may be lodged there, either with your hand, a cloth, or wet sponge, as may be most convenient. His feet are next to be examined, and the dung or litter picked out, and, if necessary (any dung which is of a glutinous quality sticking to them) must be washed. And, lastly, the legs are to be rubbed with a clean loose wisp of straw in each hand, for which purpose you should go down on both knees, pass the wisp down the legs and sinews, and finish with passing your hands down in like manner, to feel that they are smooth, and no particles of the straw (or thistles, which might be among it) adhere to or stick in the hair; these rubbings are to put the blood in circulation in these parts which are remote from the heart; for with some constitutions it is difficult to prevent a degree of stagnation, which causes the legs to get round, and, if neglected, would become what is termed the grease.

The dressing thus finished, give him his water, the quantity agreeable to circumstances, that is, if the horse is inclined to have too much belly, you are to shorten his allowance of water and hay; if he is immediately going out,

don't let him drink too plentifully, for no horse can travel or work well, if blown out with hay and water; on a long journey a horse may be permitted to refresh his mouth with washing, and taking a few swallows frequently, but not to satisfy himself with water till his day's work is done. I am speaking here of the hackney, which will not be required to travel faster than eight or nine miles an hour; but if you intend to travel faster, his work should be the sooner done, and washing his mouth is all the water he should have till he has got to his journey's end.

Having given him his water, give him another feed of corn, sifting his corn and cleaning his manger out as before observed; then shake up his litter, and again set the stable fair. The horse is now in readiness whenever he may be wanted.

Cleaning the furniture is the next consideration. Saddles and bridles must be cleaned with a sponge from all road dirt; the stirrups, bits and buckles, should be cleaned with such materials as will not injure the polish; fine sand burnt in a shovel, Flanders' brick, rotten stone, or charcoal dust, are fit for the purpose; any of these used with a piece of leather, dry, will preserve the polish without scratching them, which should be carefully guarded against, for it would be needless to have high-polished bits and stirrups, if coarse materials were used to scratch and spoil the beauty of them. When they are used, the instant they are taken off they should be wiped from the dirt, and the oil-brush rubbed over them, to preserve them till you have an opportunity to clean them properly. Plated buckles may be rubbed with leather and whiting, but be careful not to smear and whiten the leather. I am thus particular, because without these precautions a person may give himself much unnecessary trouble.

Girths, when much dirtied by road dirt, and saddle-cloths with sweat, &c. must be washed clean with soap and water; if they are white, to keep them to a good colour, it is customary to use pipe-clay; nothing looks neater than white, and, by washing as above, they look decent to the last; but if you use pipe-clay, when dry, be mindful to brush all the dust out with a clean brush for that purpose, that they may not whiten any thing that touches them, or create a dust, which otherwise they would do; when all is cleaned, buckle the girths properly round the saddle, to keep the flaps down, and put

them in their proper appointed places, free from dust, &c.

The morning's business of the stable (excepting exercise) is thus completed; the remainder may be left till noon.

Before I proceed further, I shall here show the reasons for this manner of feeding the hackney, for I would not have it understood that this is the manner to feed for extraordinary cases, hunters, &c. A hackney should be always ready to perform ordinary work, with ease to himself and comfort to his rider: riding him for an airing five or six miles, I account moderate exercise, but to go thirty or forty miles an end, without drawing bit, at the rate from eight to ten miles an hour, (which I think any good hackney in condition ought to perform with ease) is what may be termed ordinary work—to gallop twenty miles, or trot sixteen in one hour, I call extraordinary work, and a regular mode of training should, therefore, be adopted. But for the hackney, it is to be observed, I have recommended him to be fed in the morning sparingly of hay, being only one fourth of his daily allowance, because it takes up much room, and requires more water to digest it, and I allow half his daily allowance of oats, because they take up the least room, and are the most heartening food. Should, therefore, the horse be wanted on a sudden, he has a foundation to support him for a long journey, and of that quality as will not encumber and distress his wind, if you go no faster than a travelling pace, riding moderately at first, till the horse has emptied himself a little, and after at such pace as the horse is able to maintain with perfect ease to himself; which I account to be at two-thirds or three-fourths of his speed, that is, if a horse at his best speed can only trot twelve miles within the hour, eight or nine miles are as much as he can do comfortably to himself, for the continuance of three or four hours, and so on in proportion for faster or slower horses. I don't say but a horse may do more, but then it becomes labour to both horse and rider; there are horses that will maintain this pace for ten or twelve hours together, witness Crocket's mare, that trotted one hundred miles in twelve hours on Sunbury common, about thirty or forty years back, and, no doubt, there are many others would do the same—Tom Thumb, for instance.

But to return. At noon give him the like quantity of hay as in the morning, and his feed of corn; set the stable fair,

that is, put his litter to rights, and take away his dung. This is all that is necessary till watering-time, which is about four o'clock, at which period you strip the horse, and brush him over.

I have had lads that could hardly be persuaded of the necessity of this, alleging that they had cleaned them perfectly well in the morning, that the horse had not been out of the stable, and that the clothing prevented dust from settling on them; therefore, they could not conceive the necessity of it, and many others may be of the same opinion. To satisfy them, I was obliged to explain, that the dust they brush out of the coat, is not the dust of the stable, but arises out of the skin from the imperceptible perspiration which is continually issuing through the pores. Besides, stripping the cloaths off, and brushing him over, greatly refreshes the horse, and puts the blood in a more free circulation.

Currying and wipping may be here dispensed with, unless the horse is newly taken up from grass, or the like, and that his coat is uncommonly thick and foul; in which case a moderate use of the currycomb may be applied, so that you do not occasion the coat to stare; but, in general, the brushing and wiping are sufficient, finishing in like manner as was directed in the morning, with rubbing the legs, which must never be omitted, combing the mane, tail, &c. and then watering; if there is not a probability of the horse going out, let him have a greater quantity of water than in the morning, and if he is not a greedy horse for water, he will not drink more than will do him good; but, if you perceive his belly gets too large, you must allowance him.—Setting the stable fair, you have done till the final doing up for the night.

At about eight o'clock, go to the stable and finish for the night. You must now give him his remaining allowance of hay, being double what you gave in the morning, and his remaining feed of corn; you give hay more abundantly at night, because it will be in so forward a state of digestion in the morning, as not to occupy so much room in the stomach, which, when working, would obstruct the lungs and distress the wind; the explaining, therefore, the meaning or intention of your feeding, will be a guide how you should vary it upon particular occasions, so as to have the horse in good heart and spirits, but empty when wanted for expeditious purposes.

The last thing is, making up the beds, and setting all fair. In making up the beds, you contrive so lay all the worst of the litter in the middle or bottom, where the horse is most likely to wet and spoil it, and pulling down the litter you put up in the morning, reserve the cleanest and dryest part to top the bed with, making the bed up high on each side, and fullest towards the hind quarters, that it may be soft and pleasant to the horse whichever side he lies on, as they will sometimes lie on one, and then on the other; throwing out all dung, and sweeping clean out, see that all the stall-collars are secure, loose cloaths taken off, and every thing fair, which finishes the routine of the stable.

I shall next speak of exercise, dirty horses, and the like.

Exercise is so essentially necessary and beneficial to the horse, that all the feeding and grooming will avail but little, if work or exercise is omitted. It is admitted that great numbers of horses are killed and spoiled with over-work, and, it is a doubt with me, if as many are not spoiled in London for want of work; there are several persons in London who keep horses, but are so occupied with business that they cannot ride them out oftener than once in the week, and many that I know don't ride them once in a month—their horses stand at livery, and they order them to be exercised, but what exercise can be given there, and by whom are they to be exercised?—Men employed in livery stables have seldom less than eight, and I have known some to have sixteen livery-horses to look after; these men, if they rub the dung off, and occasionally give them a brush over, omit exercise, not finding time for it. Gentlemen do not like to see or know that boys are permitted to ride their horses, and without they keep grooms their horses will go short of exercise. Consider, then, the state of those horses that are shut up in a stable very confined and filthy; if they are sometimes moved about, which they call *exercise*, it is on a ride perhaps fifty or sixty yards long, made of litter and dung, with a reeking dunghill at some part of it, so that the horse literally breathes only air strongly impregnated with the evaporation of dung: I think it surprising they are so well as they are.—The disorders it brings on them are a short cough, called (not improperly) a stable-cough; weakness in the joints, so that they frequently make a drop, as it is termed; various humours, swelled legs,

grease, and farcy; at their best, when they look plump and well to the eye, they are faint and foggy, and unable to perform more than would be common exercise for horses in condition; it is well they are not over-fed, but just sufficient to keep them in flesh; for were they to have the feed a horse should have to be in condition, they would fly to pieces the sooner for want of exercise.

Since, therefore, exercise and air are so beneficial, let us consider in what manner exercise should be given: this is to be regulated according to circumstances.—Where horses work two or three days in the week, the resting days require no more than airing exercise, for every horse should have at least two days in the week such work or exercise as gives him a good sweating; this throws out through the pores of the skin, what might otherwise lodge and breed humours; it likewise raises the scurf, adhering to the skin, and makes the coat fine; days, therefore, that the horse is not wanted for work, he must be exercised for the air, which is bracing and strengthening to the limbs, refreshes the body, and creates appetite: the early part of the day is preferable for this.

As soon as the stable has been cleaned out in the morning, which is while the horse is eating his first feed, brush him over, and put on his exercising saddle and bridle; in cold weather, if you only intend walking him, you may keep the cloth or sheet on under the saddle; in warm weather I do not recommend it, for, though a horse's coat may be something the finer by being kept warm, yet he is certainly the more liable to take cold when he is necessarily deprived of it.—The most open and airy places should be taken for exercise, and this is the most favourable opportunity to improve a horse's walk; for when he has only walking exercise, you have to walk him for two hours, which will be sufficient, and by aiming to extend his walk, you may greatly improve it—thus you exercise the horse, and improve him at the same time.—At your return, thoroughly clean him, give him his feed, &c. If you had convenience or opportunity while you were out, you might give him his water. If a horse is hardy, and inclined to flesh, I would rather recommend the like exercise in the afternoon, where persons have time and convenience, than to shorten his feed for that purpose; it would be much better for the horse, but every one cannot allow the time to be so taken up, for it would

be nearly equal to training, and may not be thought necessary; it is more than the generality of horses require, and many inferior-bred horses, who look well to the eye, cannot for a continuance stand the ordinary exercise that a horse has in training; such is the amazing difference of horses.

Should his work be so moderate as not to occasion a sweat, I think it beneficial, about twice a week, to give exercise strong enough to sweat him; this may be done in the pace he is mostly rode in, that he may be practised and improved in it; if he is admired for his trot, it would be wrong to gallop him, which might unsettle him in his esteemed pace; therefore, trot him out for the space of two miles, to bring him to a comfortable sweat, and walk him back; thus you extend his limbs, supple his joints, and strengthen the ligaments and sinews; for we know not our strength, unless we are put to it—inactivity debilitates, and over-exertion may sprain and weaken; but moderate exertion is good both for man and beast.

A lady's horse, if admired for the short united gallop, may be much improved in sweating exercise, if the exercising groom has a hand equal to the task, for no pace sweats so soon as the united gallop; the horse that is properly broke for a lady, is united or worked up to a certain pitch by a masterly hand, for ladies (few of them, however) are not capable of keeping them up to it, so that after a time the horse becomes less and less united, unless the groom in his exercise, can gallop the horse in extreme union, whereby the horse will ever be continued fit and pleasant for a lady's riding. Thus, in exercise, the esteemed pace, either walk, trot, short or extended gallop, may be practised and probably improved—for practice is the only mode of improvement.

Sweating and dirtying of horses occasions considerable labour to clean, and indolent grooms, and those who have several horses to look after, avoid this part of their business as much as possible; some would persuade you there is no necessity for it; but reason and experience teach us otherwise.

When horses come in from work or exercise, if in sweat, or wet and dirty with sloppy roads and rain, they should not be left till they are made completely dry, clean, and comfortable; some horses in good condition will rub dry and clean in a short time, but others, with long or curly coats, and some from constitution

or ill condition, are a long while getting dry. I have known an industrious groom to work at a horse for four hours, and would not leave him till dry, while others will cover them with a cloth, and leave them to dry before they will clean them; much depends on the habit the horse has been used to, constitution, condition, &c. whether the horse will take injury from being left in his wet and dirt; but those horses that have been properly groomed, having all care taken of them to keep their coats fine, and on all occasions made dry and comfortable, would be liable to take cold, which might be the forerunner of other diseases, if neglected at these times.

I must caution you not to suffer a practice which nothing but indolence and ignorance could ever have introduced, and what has cost many a horse his life; this is when a horse comes in (we'll admit thoroughly) wet and dirty as can be, to ride him into a pond, or wash the dirt off with a water-brush; this bad grooms will do, if permitted, all under the belly, and half up the body, alleging, that the horse cannot be wetter than he is, and that it will wash the dirt off, and he will dry the sooner. To such feasible arguments I have been obliged to oppose mine: that the horse was wet as possible I admitted, but that wet came on little by little as the horse splashed himself, and the heat of his body, with exercise, had tempered that wet to the heat of the body, and the horse was not so liable to injury from that; but to apply a body of cold water, which they must do to wash the dirt off, while the blood was in heat or fermentation, would strike a cold to the heart, close the pores, and obstruct nature in discharging herself by perspiration. I have been served thus at inns on the road, before I was aware of what they intended, and to prevent the consequences, I immediately made them be rode again, to keep the blood in circulation, and the parts thus chilled had recovered their heat, so that the pores might keep open to perform their offices.

Since the method of cleaning a horse in this wet condition of sweat and dirt, did not occur in the daily routine of the stable, I shall here introduce it.

The first thing after stripping the saddle, &c. off, when the horse is so wet with sweat or dirt as to require it, is the scraper, usually made of a flat piece of wood, with a thin edge for the purpose, or a piece of iron hoop is a good substi-

tute; with these you carefully scrape off as much of the sweat or dirt as you possibly can, beginning at the top of the neck, and proceeding to the shoulders, chest, back, ribs, flank, hind quarters, belly, inside the arm and thighs, down the legs, &c.; when you have scraped off all you conveniently can, take him into a stall; then take off his bridle, and with clean wisps of straw give his head a good rubbing in every part; this should always be the first part rubbed after a horse has been out; it is exceedingly refreshing, and the horse as much as tells you so, for if you neglect it, he will rub himself against you, or any place he can get at. After rubbing his head well, put on the halter, and tie him to the rack, giving him a bit of good hay to amuse him, and then wisp him with clean straw, beginning and going from place to place as you would at other times, only let your wisps be loose clean straw, repeatedly changed as they get wet and dirty; the first wisping over you should rub both ways, to get as much of the mud out of the coat as you can, finishing with laying the coat smooth and close, that the heat of the body may assist in drying it the sooner; be mindful not to omit under the chest, breast, belly, under the flank, and between the hind quarters; these places not being so full in sight, are often neglected by ostlers and stable-men on the road; the legs must also be wiped down with wisps to take off the top of the dirt: having done one side, proceed in like manner with the other, and the first will be drying the while; after having in like manner wisped the other side, which is merely to take off the principal dirt, begin again, taking plenty of clean dry straw, and wipe him, for the purpose of getting him dry; if he is in good condition, and his coat short, you will soon get him dry; the wiping the coat down smooth will greatly contribute towards it, unless the horse is faint and weak, and breaks into fresh sweats by your rubbing; in this case apply the clean wisps with a lighter hand, that you may occasion the least perspiration, but not desist, though you will be the longer time about it.

Many readers will say, "my horses are not thus attended to, and yet I don't perceive any harm arising from it." This I will admit, that when horses have not been accustomed to thorough grooming, they may not be so liable to take injury on these occasions; but those that are properly groomed, not only are finer and

better in their coats, but more lightsome, active, and strong, for it, and able to go through more labour than they could without it; for this purpose grooming is necessary, and, being in the habit of it, a horse might sustain injury if neglected at this crisis, when it is most wanted; for which reason a good groom never leaves his horse till he is dry, and if he is a long time getting him dry, the horse will sustain no injury while he is rubbed, as it keeps the blood in circulation, and prevents getting cold.

Having got him dry with wisps or wiping (for some grooms are allowed coarse cloths like jack-towelling, for this purpose) proceed to brush him over as at other times, and finish the head, mane, and tail, rubbing the legs clean and dry, picking the feet out, and sponging the hoofs clean if necessary, thus making him as comfortable and dry as when he went out in the morning.

I think I have noticed the ordinary occurrences in the hackney stable, except trimming, which I consider the principal part of the groom's business, and what every one who has the care of horses should qualify himself to perform, as it is allowed to embellish and set a horse off to much advantage. Many horses are exceedingly troublesome to trim, and require extraordinary means to be taken to accomplish it, such as are shocking to relate; and I have known half-a-guinea given to trim such troublesome horses.—I am of opinion they were made so from improper methods taken at first, by those who had not patience to coax, nor ability to accomplish by compulsion, and who, therefore, made the horses desperate without fully accomplishing their purpose.—Most horses have such a dislike to be trimmed, particularly about the head, that few will stand without the twitch, and if they stand tolerably quiet with that, it is as much as can be expected; but if with a little coaxing it can be done without, it will be the better.

There is great care, skill, and judgment required in trimming: care, that you do no injury by the unsteadiness of the horse with your scissors—skill, that you may not disfigure him by scoring, notching, and the like—and judgment to trim in that style as will be most proper and advantageous. Begin, then, with the head, first with the foretop; you are to cut only that part of the forehead which is in the way of the front of the bridle and stall-collar, cutting it away close and

smooth; next clip away that part on the poll where the head-stall of the bridle or stall-collar comes, being mindful to clip as little towards the neck as you can avoid, for if you clip beyond where the head-stall of the bridle comes, you will disfigure the neck; you next come to as difficult a part as any, which is trimming out the ear, and few horses will stand quiet without being pinched with the twitch.

Good workmen will make shift with any sort of tools, and bad ones blame the tools for their own awkwardness; nevertheless, handy tools are to be preferred; the scissors for trimming ears will be most handy if narrow in the blades, the points not too picked, but should cut well at the point; begin with clipping the inner part of the ear, not cutting near the edges till you have got the long hair on the inside cleared out, and then gradually approach to the edges, shoving the outside skin of the ear back, that you may not clip so near as to leave the edge of the ear bare, which you would do if you did not take that precaution, and would shamefully disfigure the ear. The outside skin of the ear is very loose, and as you hold it with the left hand while you clip with the right, you are apt to draw it so forward that it deceives you; for you suppose you are not clipping near the edge; but when the hold is let go, you will perceive the edge bare, and this must be continued, or the ear will appear in scallops or notches, so that much care must be taken to guard against this error. When you are near the edges, you cannot be certain where to cut while you hold the ear, you must frequently let go to notice if you have cut far enough, carefully avoiding to take too much at a time; having clipped to the edges of the ear, and no farther, the outside hair will stand projecting beyond the edges of the ear, quite even and regular if you have been careful to clip it so.

At the bur and root of the ear, a deal of long flossy hair grows, which must partly be clipped away, that on the inside entirely with the scissors, and that on the outside you must be careful not to leave in scores and notches, leaving the singeing to accomplish what the scissors cannot so well effect. You finish with the scissors, by clipping round the edge of the ear the hair that projects, cutting it all round, so that you preserve the exact beauty and shape of the ear, being mindful not to notch or cut the back hair, so as to show the roots of the under hair, which will be a disfigurement; much at the root of the

ear must be left for singeing; the scissors will only score it.

You next clip all superfluous hair about his face and beard, which grows like a cat's whiskers, some under his eyes, about his nose, lips, and beard, cutting them close as possible.

Rough horses newly come from grass, and coarse-bred horses, have a quantity of superfluous hair growing very thick under the thropple and about the throat; this must be removed, partly by the scissors and partly by singeing; the longest and thickest part should be removed by the scissors; in the parts least in sight, be mindful to score as little as possible, for it is a difficult task to clip without scoring, and the hair is of that quality and so thick, that you might broil the horse before you could singe the scores out; therefore the greatest care must be taken to score as little as possible.

The fore legs are the next which present themselves, and the legs are sure to be particularly noticed, and consequently must have all pains taken with them; thorough-bred horses kept in stable, and properly groomed, seldom require trimming about the legs; all superfluous hair rubs off with their dressings; but when newly taken up from grass a little long hair will appear on the back sinews and on the fetlock joints, which may be taken off with a sharp knife; putting the blade under the hair, with the edge upwards, you press the hair between your thumb and the blade of the knife, and drawing your hand upwards, cut the hair that was so compressed to any length you please, which will leave no scores, and, if properly done, it will scarcely be perceived that they have been touched.

The coarser the breed of the horse, the more superfluous hairs will be found on the legs and within the pastern, and where it is abundant, it must be removed with the scissors; beginning next the heel, clip the hair out clean within the pastern, and under the fetlock joint, the adjoining part must be nicely tapered, that the sudden break from short to long may not appear, which it otherwise would in scores; for this purpose, put a comb under to raise the hair, and cut in such manner as to leave the outer hair the longest, whereby the mark of the scissors may not be seen. The soft spongy piece of flesh at the back extremity of the pastern joints, may be pared down, if necessary, with a sharp knife, and the hair next above left in such manner as to conceal it, being nicely ta-

pered off to resemble or appear like blood legs, or the legs of a blood horse; the hair up the back sinews must be raised with the comb, and cut in equal or even lengths, tapering the hair next the bone towards the sinew in such manner that no breaks or scores may appear, the hair next the back sinew being left the shortest.

Horses, like men, are not all equally straight: some horses are a little bent at the knees; where this happens, the hair within that joint must not be clipped too close, as it would make that defect appear more conspicuous, and trimming is to make the horse appear to advantage; therefore, care must be taken to conceal all the defects you can; but where the legs are straight, all the flossy hair within that joint may be removed carefully, minding to leave no scores with the scissors. Round the coronet of the hoofs the hair should be clipped, making it regular and even. The legs being thus trimmed, there only remains the tail for the farther operation of the scissors, as no scissors are ever to touch the mane, unless it is hogged.

Fashion and fancy are ever wavering, and the horse's tail and ears have been always subject to changes, agreeably to the taste of the times: at one time, a switch tail—at another, a full bushy tail—then a blood tail, and several others—and now a thin tail. I suppose that each of these fashions will again prevail at one time or other, therefore I shall notice each of them.

The switch tail required no cutting; the long hair left on the tail after the end of the dock was taken off, was pulled underneath, and at the sides, with an iron instrument made for the purpose, (but now seldom to be seen but in the carter's stables,) till they tapered it to a point, hanging about eight inches below the dock. There was much reason in this tail, for, since nature had accommodated the horse with a tail to cast the flies off, and fan himself with, man only took off the extremity, which he found annoyed him when the horse switched it about in hot or dirty weather, and left the horse all that could be allowed, so as not to incommode himself.

The bushy tail preserved all the hair it could, and, holding the tail to that elevation in which the horse usually carried it, the scissors cut in a perpendicular direction within about half-an-inch of the end of the dock. Scissors were made purposely for this business; the first sort were

made nine inches long in the blades, to reach to the top without the hand putting the hair out of place; but afterwards it was found more convenient to have the haft of the scissors bent like the gardeners' shears, which they square the hedges with. There is much art and ingenuity in cutting these tails truly square, leaving both sides of equal length, and leaving no projections or hollows at the end. The carriage-horses are mostly cut so at this time.

The brush tail was suitable to those horses that, from being well nicked, carried their tails high, and bent upwards; these tails were cut rounding in such manner, that when their tails were up, they resembled the hair of a brush, and much ingenuity is required to cut them true and even.

The blood tail has been much in vogue for many years, and I think is as becoming as any. This requires the least art or ingenuity in cutting; you have only to comb the hair out, and, holding it together with your left hand, you cut the ends off square, at a proper length, generally about three inches below the end of the dock; then, combing the tail out, hold it up, and correct any irregularities you perceive. The hair of the blood-horse's tail is generally thin, and of an easy flowing nature, so that the tail cut in this manner is very becoming.

The thin tail is a mean representation of the blood tail; for half, and inferior bred horses, have fuller and more bushy tails than blood-horses; hence, to bring them to some resemblance of the blood tail, they pluck the under hair to thin it, and by that means make it appear like a thin ragged tail; the ends are squared as the blood tail.

Thin-tailed horses have been remarked in general to be good ones; whether the fashion was brought up to convey an idea of goodness, or to resemble blood, I cannot determine; but the difference is easily discovered, and I think they should be denominated ragged tails.

There only remains now to pull the mane and singe. First comb the mane thoroughly, laying it very smooth and even; then begin at the top, and, taking hold of a few of the longest hairs at the points with the right hand, separate them from the other hair by shoving the comb up; if you have hold of no more than, if bound together, would be about the thickness of a straw, twist them round the back of the comb, and pluck them out; then

combing the mane down again, take some more and pluck in like manner, till you have reduced that part to the thinness and length you wish; then proceed in like manner down the mane, till you have reduced it all alike, repeatedly combing it out, and any irregularities you perceive, correct, but not with the scissors; hairs left longer than the rest must be plucked, but not cut.

The foretop is a great ornament, and should be left long, so that it will tuck under the front of the bridle, and reach three or four inches below; the extreme ragged points may be taken off with the scissors, so that it is left thin at the points, but not squared to be thick and bushy.

Singeing now finishes the trimming business. Rough horses newly taken from grass, usually want much singeing all over, there being long downy hair projecting beyond the rest of the coat, which can only be taken off at the present by singeing, for it would be some time before the daily dressings would bring it off.

Begin with the head. For this purpose you have a candle with a large wick—a shoemaker's candle, that is made with two wicks, is best; the long downy hair which projects beyond the rest of the coat, may be singed to a level with the coat; these you will find in some parts more abundant than others—the outside of the ears will have some, much at the root or bur of the ear; the candle must not continue long in a place, to burn the horse; therefore, where there is much to singe off, you must rub the singed place, let it cool, and apply the candle again, but not to continue it so long as to blister the skin; the places that require the most singeing are at the root of the ear, the throple, about the throat, and adjoining part of the neck; on the other parts, the long downy hairs will singe down at the first touch; but the places I have named, where the hair is thick and long, you must wipe the singed part off, and repeat it several times, minding not to burn the horse, which the thickness of the coat will prevent, unless you keep the candle in one place an unreasonable time, which you must be mindful of. Putting your hand over the eye, you singe all the light straggling hairs you perceive about his eyes, brows, forehead, cheeks, beard, and the like; where there is the least hair, you must be most careful not to burn, but the throple and throat generally want many repetitions, the hair being so abundant and thick, and frequent

wiping to see that you do not singe it irregularly.

The head and throat being singed with the candle, the residue of the body is singed with straw. For this purpose you draw out some clean long straw, taking as much in your hand at a time as about the thickness of three fingers, and lighting one end, pass the flare or blaze from one place to another, beginning at his neck; be careful not to singe his mane; proceeding from thence to his chest, shoulders, breast, and every part where you perceive long downy hair projecting beyond the generality of the coat, minding not to make your blaze too large, nor continue it too long in a place, particularly where there is but little hair, as under the flank, and within the thighs, &c. Then giving the horse a good wiping and brushing over, completely finishes his trimming.

I have to observe, that horses having been kept for a time in the stable, and properly groomed, have not these long downy coats, and consequently will not require singeing all over the body; the beard, the ears, mane, and tail, are generally all that a blood-horse requires to be trimmed when he is kept in stable, but coarser horses will require the heels and other parts to be trimmed, though the coat may be kept so fine as not to require singeing.

I have observed, some horses are troublesome to trim. The means usually taken in addition to the twitch on his nose, or sometimes on the ear, are to gag them with the halter put through the mouth and over the ear, so that the more the horse struggles, the more he gags his mouth and pinches his ear; to keep the leg still while you are trimming it, a person should hold up the one while you trim the other; if a hind leg, a side line may be put on to draw up the leg you are not trimming; these are the usual expedients, but should only be put in practice when the horse cannot be coaxed to stand without them.

The most resolute and troublesome horse to trim that I ever saw, was secured in a stall with two strong halters, the one put on in the usual way, the other as a gag through his mouth; with these he was turned about in the stall, and one halter was tied to each stall-post so tight, that his head was confined in the middle, in such a manner that he had little or no liberty to move it in any direction; the consequence was, the horse made one resolute effort to extricate himself, but finding himself secured, and the gag punish-

ing him the more he struggled, he was cowed, and submitted to be thus held while he was trimmed. Plenty of litter in the stall is advisable, as it may prevent accidents in the horse's struggling.

HUNTING STABLES. After what has been said in the preceding chapter, there remains to be noticed the method to get your hunters into condition, and the care and management of them through the season. Hunters are usually turned into good grass after the season is over, and taken up generally in August, to be got in condition against the approaching season. Grass, if ever so good in quality, is not a substantial food; it is cooling and opening, and, though it makes horses fleshy, it nevertheless is not that description of flesh as the horse could work on; if you were to attempt to gallop him to that excess as you are necessitated when hunting, you would find the horse faint and weak; his flesh would melt or waste so fast with a white lathering sweat, as would most likely throw him into a surfeit, and kill him; therefore, the first thing to be done to alter this state of the blood, in the best and most expeditious manner, is to bleed and physic.

No person has a greater aversion to bleeding and physicing than myself; I have been always in the habits of treating my own horses much after the same manner that I would myself, which was, never to take medicine unless I perceived an absolute necessity for it; for I have made a remark that all medical men that I have been intimate with, (and I have known several) have prescribed medicine to their patients for the most trifling complaints, but took none themselves unless they were extremely bad, and thought there was some danger. Judging I must be right in following their example, I therefore never take medicine myself, nor administer it to my horse, unless I am fully persuaded there is a real necessity for it, and then generally of my own prescribing, for I never apply to a doctor for ordinary or common occurrences.

In the case of a horse being taken up from grass, they are generally very full of blood, and inclined to itch and rub themselves much; and not only in this, but at all times when the horse rubs himself much, bleeding may be necessary. The first thing, therefore, to be done, is to get him shod, for horses usually have their shoes taken off when turned to grass, and if not, they generally loosen them

before they are taken up; then take about two quarts of blood away, and let him stand quiet without any food of any kind for three or four hours. While he is full of grass he will not drink much water, but after living a few days on dry food he will drink plentifully if you will let him; there is no necessity for your stinting him in water, till he has been through his physic. If he can be taken up from grass by degrees so much the better.

His coat will be exceedingly foul and full of dirt and nits, therefore he will require some good dressings; the opening his coat and taking the dirt out, will require him to be clothed; buckle a cloth on with a good broad roller, pretty tight, to help to get his belly up; after he has been in stable three or four days, and emptied the grass out, you may give him his first dose of physic, preparatory to which, the night before give him a cold mash, consisting only of bran moistened with water—this, and hay, is the only food necessary till his physic is set, as they term it, that is, done working; were you to give more substantial food, it might lessen the effect or operation of the physic, or be thrown out whole and undigested; consequently, it is best not to give any. Give your physic the first thing in the morning, and if your physic is good, it may be expected to operate from twenty-four to thirty hours after giving.

I do not mean to give any prescriptions for physic, lest I should be accused of meddling in a profession I have not taken up my degrees for at the Veterinary College; scarcely a druggist but what prepares horse-medicines, and every veterinary surgeon has them in dozens, ready made up for immediate use; but should any gentleman have a favourite prescription, which he prefers for his own use, I will not dispute the goodness of the prescription, but I must caution him to be certain that the quality of the drugs of which it is compounded, are genuine and good; I don't know a more serious evil than the compounding of medicines with bad drugs, and I have experienced the evil in the country, when I have sent a prescription to be made, for, whether from ignorance of the quality of drugs, they might have been imposed upon themselves, or whether from avarice, thinking a cheap or spurious article might do for a horse, I won't pretend to say; but physic prepared with bad materials not only deceives and dis-

appoints you, but may do infinite mischief, even the loss of a horse perhaps worth a hundred guineas, or more; therefore I recommend you to procure your physic of persons who are respectable, and prepare great quantities; it is likely from their using large quantities, that it is not prepared with stale drugs, and also from experience they are judges of the quality; but giving a horse-prescription to an apothecary, or a country druggist, it is likely to be made up of drugs that have been years in his shop, and perhaps originally not of the best quality.

By the continued use of one person's physic, you will become acquainted with its strength and quality, and may, if you think necessary for either small, young, or weakly horses, diminish the dose, suitable to the constitution you give it to.

Every groom should be expert and handy to administer and apply the common and ordinary recipes to a horse, and perform the common operation of bleeding; the frequent sight, and assisting at these operations, convey the best idea of them; nevertheless, there is an art in giving a horse a ball, which a looker-on cannot easily discover, and it being a material thing to give it well, I shall point out such particulars as may assist the young practitioner.

The generality of things may be done with deliberation, but the giving a ball must be done expert and quick, if not, it becomes disagreeable to the horse and difficult to you; a balling-iron is used by those who are not expert at it, and it may be best for those not in the habit of giving balls, but those accustomed to give balls will do it as well and sooner without.

First, you should be certain you are tall enough to reach, should the horse raise his head, before you make the attempt, and if not, stand on something to raise you. Let the person who holds the horse, have the ball ready to give you, if you are necessitated to use both hands to get hold of the tongue, and place it as I shall direct. Stand before the horse, and take the farthest hold you can of the tongue with your left hand, drawing as much out of his mouth as it will admit, and in such manner that your thumb is in the mouth, placed on the near side of the tongue, and pressing it between his grinders, which effectually prevents him from shutting his mouth; folding your right hand in as small a compass as you can, hold the ball at the extreme end with the three first fingers, and put it over the

root of the tongue into the gullet, thrusting it as far as you can reach with your fingers; then let go the tongue, and bridle the nose in, to prevent his attempting to cough it up, till you see it pass down the gullet; you must attentively watch this, for you cannot be certain of his swallowing it, unless you see it pass down; if he hesitates to swallow, hit him on the gullet with your hand, and that will occasion him to make a gulp; for some horses will, if you are not mindful, hold it in the gullet till you loosen the head, and then cough it up; or if you have not properly put it into the gullet, but lodged it at the extremity of the grinders, you will perceive him chewing it, and put it out of his mouth. I have seen awkward persons spoil several balls before they could put one fairly down; if you are awkward, the horse will make the more resistance; but if you are expert you pop it down without inconvenience and disturbance to the horse.

When you have given the physic, you need not take him out of the stall till it should begin to operate; hay, or bran moistened may be given him, if he will eat, but the physic mostly occasions sickness, and he refuses to eat. Water may be given as much as he will drink; warm water will occasion the physic to operate the sooner if he will drink it; but cold water, or such as has stood in the stable some hours, which takes the raw chill off, will not hurt him, if the physic is prepared without calomel, or other preparations from mercury; which should only be given in certain or obstinate disorders, worms, &c. on which occasions no cold water should be given, and extraordinary care taken not to expose the horse to take cold, but with plain physic there is not that danger; nevertheless, you are not to strip his cloaths off, nor dress him till his physic has done working, or his dung set, which in general will be about the third or fourth day.

At the period his physic is, or should be, operating, you may take him out and move him about, in a walk or gentle trot, but not so much as to heat him, to promote the working or operation of the physic, and let him drink as much as he pleases; but you are not to strip any cloaths off, but rather throw an additional cloth over him, for warmth promotes the operation of the physic, and cold will check it; therefore, the walking, or moving about you give, should be in a dry and warm place; when the physic has operated once or twice, put him

in; you may wipe his legs clean, or any dung off his houghs or hind quarters, but not give him any rubbings, for that would loosen the coat, or open the pores, which might subject the horse at this period to take cold, and stop the working of the physic.

When the physic has so operated, as to keep the body open for about twenty-four hours, giving him copious and loose stools, you may forbear using means of promoting further operation, and let him stand till his dung is set; you may then give him his corn, strip and dress him well, and the next day take him out to exercise.

About the sixth or seventh day from the time he took his first dose, you may administer the second dose, ordering the horse in the same manner as I have directed; and again letting the same time elapse between, you may give the third dose, which in general is sufficient to thoroughly cleanse the horse from that faint or foul condition which green food naturally occasions; and then you will, by proper diet and exercise, get him into wind and condition fit for hunting, but before I proceed with that part, I shall make some farther remarks on physic.

I have noticed the manner of ordering a horse in physic, under the circumstances of the physic properly operating and going on right; but from various causes it may so happen that physic does not take a proper or the expected effect. If physic does not operate in the space of thirty-six hours, some reasons should be assigned for it; it may proceed from the quality of the physic not being good, or it might so happen that the ball was not completely administered, for when a ball is awkwardly given, and the horse gets part of it in his teeth, he may only swallow a part, which you perceiving to pass, may be therewith satisfied, and the residue may be dropped in his litter, and never after discovered; or it may proceed from the habit or constitution of the horse not being easily moved, so that he may require a stronger dose; and some horses will keep physic longer within them before it operates than others. Whatever the reason may be, I should not be in haste to administer another dose till I had used the ordinary expedients, and waited to observe the effect.

When physic does not operate in the space of thirty-six hours, keep the horse warm, for that will assist the operation, and warm a quart of mild ale, and give it to him with a drenching-horn; or it can be as well given out of a bottle, if you

have not a horn at hand, minding not to give it too hastily; and a quarter of an hour after let him be gently moved about in a trot, but not to heat him; at night give him a warm mash, with a handful of ground malt in it, and if it does not operate the next morning, I should then be inclined to doubt whether he had really taken the physic, unless the horse had been sick, which you will perceive by his being dull and heavy, and refusing his hay: on the other hand, a soft stool only, may be in consequence of the warm ale or mash you might give him; but if he throws out a copious thin stool, having been sick with it, you may conclude he had his physic all, or in part; yet, if his body is not kept open four-and-twenty hours, having several copious stools, I consider his physic not to be sufficiently strong, and should increase my next dose accordingly, for in general the first dose of physic operates the most, and I usually take a small piece off the first dose to add to the last, if I think necessary, and particularly if I know not the constitution of the horse I am administering to, it being safer to under-do it, than over-do it; and by the second dose I can very well judge what his constitution will bear, and proportion my dose accordingly.

On the other hand, it sometimes happens that physic is too powerful, owing to various causes—sometimes the constitution or habit of the horse's body, is weaker than at other times; and sometimes the physic may be composed of stale drugs, such as have lost their balsamic quality, but retain the purging quality, which is exceedingly injurious; in these cases you will observe the horse purge from the anus, throwing only part of his stool from him, and an involuntary discharge issuing from the anus, running down his hind quarters underneath, and all down his houghs and legs, in a continual wet and slimy condition; you must then keep the horse still, and be mindful not to let him take cold, wiping him as dry and clean as you can, for the stool is of a very sharp acrimonious quality; if you find the purging does not abate in its due course of time, proper remedies should be taken to check it; rice gruel may be given him for drink, and if he is disposed to eat the rice, you may let him; you must desist from giving him bran mashes, but give him dry and heartening food, if he will feed; should the purging still continue, you may mull a bottle of red port, with plenty of cinnamon or cas-

sia, and when sufficiently cool, give it him as a draught with the drenching horn—this will most likely check the purging, if not, you may repeat it. An ounce of gum-arabic should be dissolved and given in his water, which will heal and strengthen the coats of the stomach, if impaired by the excessive operation of the purging medicine. When the purging has been thus excessive, I should let a clear week elapse from the time the dung was set, before I gave another dose, to let the coats of the stomach recover from the injury they may have sustained; giving the dissolved gum-arabic in his water for that purpose. You will consequently be mindful that your next dose shall be less in quantity, or of a less injurious quality.

Horses having gone through their physic, you proceed by proper exercise and diet, to get them into wind and condition for hunting. Your physicing has taken between three and four weeks to get the horses cleansed from their soft foggy food, and now about the same space is allowable to get the flesh firm, the coat clean, the limbs supplied and strengthened by exercise, and the wind improved by suitable management of diet and exercise for that purpose.

As you have been at so much pains to cleanse the body from soft and foggy food, you must now be careful that nothing but clean wholesome food shall be taken by him. For this purpose you should be provided with a rack-rein and muzzle, which must be alternately used—when the one is taken off, the other is to be put on; for instance, you put on the muzzle when you wish or expect the horse to lie down, (or, if he be inclined to bite, when you dress him;) this is to prevent him from eating his litter, which some horses will do even when it is very foul, and when fresh litter is given, many horses will prefer it to their hay; and though clean straw is not injurious to horses that are not required to gallop much, yet hunters and racers are not permitted to eat it, because it oppresses the wind. The rack-rein is an iron chain fixed at the head of the stall, which passes through a ring sewed in the front of the nose-band of the stall-collar; it is fastened in the same manner as a dog's chain to the ring in the collar, and when dressing the horse, you can, after passing it through the collar, fasten him as short as you think necessary; but at other times the chain must be long enough to

permit the horse to feed out of his rack, or out of his manger, though not to let his head reach down to his litter.

The first thing to be done in the morning at coming to stable, is to take off the muzzle, and put on the rack-rein; then throw into the manger about a quart, or a little better, of oats, according to the stomach or constitution of the horse, for some are puny feeders, and must be treated in such manner as will best invite or occasion them to eat, while others, on the other hand, will eat all you set before them, and must be stinted to a proper allowance. The oats for these occasions, should be the best that can be procured—dry old oats, short and plump, clean from all manner of seeds, which are frequently to be found, particularly among foreign oats, perfectly sweet and free from dust, and white as a hound's tooth; sift them well, and blow the husks, chaff, or any light oats away, and be sure to keep the manger very clean; when the horse has eaten his oats, during which you will just clear his dung from behind him, but not to disturb the wet litter, as to occasion the vapour or stench to arise, you may strip off his clothes, rub the dung, if any, off his hind quarters, hocks, &c. and giving him a light brush over, put on his exercising-cloth and saddle; then turning him about, brush his head and ears, put on his bridle, and take him out for exercise. The stripping and brushing I look upon to be as refreshing to the horse as your washing when you get out of bed in a morning. While the horses are out at exercise, a person should be left at home to clear away all the wet dung immediately, setting the door and windows open, to get the stable sweet against their return, and all the stalls set fair, and the stable cleanly swept.

For exercise, choice should be made of the driest and most open piece of turf, sod, or heath that is in the neighbourhood, and likewise where there is some gradual ascents, if of half a mile or a mile in length the better, to give the horse some gentle breathings, to bring him in wind. You should walk them the first half hour, letting them empty themselves, yawn, stretch their necks, and enjoy the sweet refreshing morning air, which is uncommonly bracing and strengthening both to man and beast; so manage your walks as to bring your horse about this time to a convenient place to give him a gentle gallop; begin slow, and gradually increase your pace till you finish at a half or three-

quarters speed; proportion the length of your gallop according to the strength or condition of the horse; if he is faint, so as to sweat soon, stop in time, and walk him to take breath and cool himself, for you are not to put him in a thorough sweat, but on those days which you appropriate for that purpose; which should be about twice a week till he commences hunting, and then he will not require any sweating in exercise; in this manner alternately walk and gallop, (so as not to sweat the horse,) till you find it time to return, which you should so manage as to keep the horse out about two hours, and after the conclusion of the last gallop, and the horse has recovered his wind, and is cool, you should contrive to have water at hand to let him drink, and then have half an hour's walk home. If the water chills him, and makes the coat stare, a gentle gallop to warm him will be proper, but not to sweat him.

Horses are most fond of staling on litter, as it does not then splash them; and if the wet litter was spread in a convenient place without the stable, (some yards are strewed for that purpose, and for making dung) the horses standing a minute or two before they are put in the stable, will stale, and thereby keep your stable clean and healthy. When put in the stable, a bit of hay should be given that has been well shaken from dust and seeds; the quality of hay for hunters should be the choicest that can be procured, grown on a rich meadow, and cut before it gets too ripe: for hay, when it stands too long before it is cut, may answer the farmer's purpose by seeding his ground, and wanting less making, but for the good of the horse, it is preferable when cut young before it seeds, and with the sap in; then if it is well made, and got in dry, it will, fourteen months after, cut out as green as a leek, and the flowers retain their beauty nearly as when growing, and hay will never be better than when twelve or fourteen months old, but such hay as this is rarely to be got; yet, hay off good meadows, that has not been heated too much in the stack, is to be got; some admire it to be a little brown, but I think if it is twelve months old, having a fragrant sweet smell, it cannot be too green. New hay must on no account be given; there is a faintness in new hay that would be as detrimental to the horse as giving him grass.

The first thing after putting the horse to his rack-rein with a bit of hay before

him, is to go down on your knees and wisp the legs, for the legs are always to be the first and last things attended to, and particularly after physic; then strip his cloaths off, and give him a thorough dressing, agreeable to the manner I have directed; after which, give his feed of oats, being double the quantity, or nearly so, to what you gave before going out; then having wisped his legs as the last thing, shake up his litter, and set the stable fair; if he has cleared the rack of the hay, (for I always recommend to give but a little at a time, that he may eat it with better appetite,) you may give him a bit more if you think it necessary, but never give more than he will clear with a good appetite.

According to the time that you should come to stable at this part of the year, which, we will say, is five o'clock, it will now be time for you to breakfast, (I suppose between eight and nine o'clock) and you may leave the hunters on the rack-rein while you have your breakfast, and they finish their hay.

At your return to stable, observe that all have cleared their racks, and if they have had sufficient time, and the racks not clear, take it away; loosen the rack-reins, put on the muzzles, and leave them for four hours to lie down if they will—it is a desirable thing for horses to rest their legs at all convenient opportunities.

This will bring the day as far advanced as two o'clock; when the days get short, you must be at stable sooner, so that you may contrive to be at home from exercise before dark. You should proceed now in like manner as in the morning, putting on the rack-rein, giving him a mouthful of hay, and a feed of oats in moderation; for you are not to fill him, or encumber him with food, particularly hay, when you are going to take him out. While the horse is feeding, clear the dung from behind him as in the morning; then strip and brush him over, previous to putting on his exercising-cloth and saddle, and take him out as in the morning. If you are situated in a country that affords a variety of suitable places for exercise, vary your places as often as convenient, it will be the more agreeable to both man and horse; and keep off the gravel road, choosing to go on the turf as much as you can; having been out about two hours, in which time you have given him two gentle breathings, you may let him have water, and return.

The stable, as before, in your absence,

should be cleared of all wet litter, and aired and refreshed against your return. After giving the horse the opportunity to stale, bring him in the stable, and repeat a rubbing of legs, and thorough dressing, having a mouthful of hay in the rack to amuse him; after his dressing, give him his feed of oats, and a bit more hay, if he has cleared the rack of what he had at coming in; this will bring you to about five o'clock in the evening, at which time you may leave him on the rack-rein to eat his hay, and at eight return to finish for the night. If you gave him a sufficiency of hay at leaving stable at five o'clock, he will need no more, the horse having had three hours to feed with hay; if he is a slow feeder, he ought to have cleared his rack by this time, and those that have not, I should take it from them; for the horse will have no appetite for hay that is glutted with it, and has it always standing before him, and you should always be mindful not to give too much, so as to cause him to leave any. You have now to feed with oats, for the last feed; see that all their clothes are proper, not got atwist, and the like—that every horse finishes his corn, not leaving any; then loosen the rack-rein, put on the muzzle, and making up a good bed, having plenty of dry litter, and a large stall to lay his legs out at length, leave him for the night.

This is the daily routine of the hunting stable, without any material difference, except on the days appropriated for sweating, which must be at least two days in the week till the hunting commences, at which time, if the horse is hunted twice in the week, there will be no occasion for sweating exercise.

I do not recommend hunters to be kept over-warm with clothes; they are exposed frequently to cold and wet, and the more tender they are kept, the more likely they are to take cold; therefore, hoods and fillet-cloths may be dispensed with: but I think it necessary that each horse should have two cloths, one for exercise, which will occasionally come home wet and dirty, and the other for the stables. Your cloths should be occasionally scoured, and your exercising-cloth as often as it gets damp by rain, sweat, or dirt, carefully dried.

On the days which you give your horses sweating, which may be on Tuesdays and Saturdays, or any other days equally distant, contrive to give his sweats as contiguous to home as you can, particularly if

the air should be thin and piercing, for the purpose of getting home to scrape and rub him dry; for when a horse is in a thorough sweat, a chilling air penetrating under a wet cloth may give him cold; therefore, the stable, or rubbing-house at hand, will be convenient to rub him dry, and prevent such a circumstance.

After having walked the horse for about an hour, bring him to the place where you intend to gallop him, and begin very moderately, gradually increasing your speed till you get him to half, or three-quarters speed, if he is hard to sweat; at which rate you may continue him, till he is in a proper sweat, which will be sooner or later, according to his condition; if he is fleshy and foggy, he will sweat soon, and his wind will be distressed; in this case you may gallop the slower, not to distress the wind, but bring him to a sweat, which will waste his abundant flesh, and bring him in wind as the flesh diminishes. If you find him in wind, and hard to sweat, his condition is the better, and you may gallop him the stronger without injury.—The meaning and intention of these sweats is, those that are in wind, to keep them so; those that are not in wind, to get in wind; to waste all superfluous flesh, and get the carcase up; throw out any foggy grossness remaining in the blood, by perspiration; it likewise cleanses the coat, making it sleek and soft, for the imperceptible perspiration continually issuing through the pores, adheres so closely to the roots of the hair or coat, that it is not easily got out; but these profuse sweatings bring it away, and you will perceive the coat to be finer when well dressed after a good sweating.

The condition of the horse is to be discovered and judged of by his sweating; if he sweats soon, and the sweat ferments into a white lather like soap, he is foggy, and must have strong exercise to bring it away; if he requires strong exercise to bring him to a sweat, and the sweat is clear like water, and dries soon, he is in good condition; but if he sweats profusely with little exertion, and the sweat, though then like water, is a long while drying, it shews a faint weak habit of body, which, with some horses, is constitutional, and such will seldom stand excessive hard days' hunting. Some horses sweat more profusely than others—this is not to be regarded as weakness, if it proceeds from strong exercise, and soon dries; constitutions differ in horses as well as in men.

The horse having had his sweating gallop, should be brought into the stable or rubbing-house, and be scraped and rubbed dry with all possible dispatch, and a clean dry cloth put on him; not the one in which he was sweated, which should be got clean and dry against it is wanted again. If he had no water while out, you may give him some after he is perfectly cool and comfortable; and should the weather be very cold, the chill should be taken off, but not made warm; water that has stood several hours in a warm stable is sufficiently chilled, and may be given him; or you may, after rubbing him, walk him about, give him water, and gallop him gently to warm it, but not to heat him—then bring him home.

A horse treated in the manner I have directed, will, in three or four weeks after having been through his physic, be fit for hunting, if proper regard is had to his feeding. His food I have directed to be of the best and cleanest quality, and the quantity must be regulated according to circumstances, such as size, constitution, and the like; now the horse's daily exercise will be on the average not less than twenty miles per day; with this exercise the quantity he eats will not hurt him, if he does not get too fat, for the horse, for hunting, must have plenty of good feed in him, but must not be burthened with flesh. If he feeds heartily, he must have strong exercise to keep his flesh down, and his body up; if inclinable to have much belly, and be fat, he must be stinted proportionably; but when he comes to hunt twice or three times a week, there will be no occasion to stint him—he will never be burthened with flesh with such exercise.

The horse being got in condition, and the hunting commenced, you are relieved from that part which regards the sweating, and instead of giving exercise to keep the horse's flesh down, and give him wind, your exercise is now for the purpose of walking off stiffness, occasioned by over-exertion, bracing the system that has been relaxed by excessive exercise, and creating appetite; hard running and long distances, continued for many hours, will consequently affect horses more or less, particularly at the beginning of the season before they are accustomed to it, so that their appetites will fail as well as their limbs be stiff; and your attention is now to recover the horse from that languor and debility occasioned by over fatigue.

Young horses, and those not seasoned to hunting, though in condition, are mostly affected by severe days, and such must not be expected to hunt more than one day in the week, for it will take nearly that time for them to recover from a hard run, either with fox or stag; but seasoned hunters will stand hunting twice a week, and some three times, though that for a continuance, I think, too much for any horse to stand, unless it is with harriers only, where there is seldom much hard running.

Now, to order your horses when they hunt, you feed and dress much after the same manner as before directed, only when you know of going out in the morning, rather shorten your allowance of hay in the evening, and increase his corn, but not so as to gorge him. He should always have a good bed, to invite him to lie down, and stretch his limbs, and his muzzle should be on; for though many do not constantly use the muzzle, yet, if it is used at all, it is most proper at this time. In the morning put your horse on the rack-rein, but no hay before him; this is what I have recommended to be your constant practice; for if you make it a rule not to give hay till he comes home from exercise, the horse will not pine or look for it. If you are going a great distance to meet the hounds, or to cover twelve or more miles distance, you may give him a moderate feed of oats; but if you are going to turn out a deer, or expect to find near at hand, let the horse go out perfectly empty, and on no account give him any water:—If I washed his mouth, it should be from a bottle from which I should be certain he could not drink more than a pint; let him be thoroughly cleaned, and his legs well rubbed, and his saddle on, moderately girthed, at least an hour before going out; this will cause him to empty himself; for if you observe, most horses, when the saddle is put on, dung if they can; a quarter of an hour before wanted, put on his bridle, and have him perfectly ready; buckling him to the stall-reins, let him stand till wanted, with a cloth thrown over the saddle.

When horses come home from hunting, it necessarily follows that all expedition should be used to get them clean, and make them comfortable; if there has been hard running, and the horses come home leg-weary and tired, cleaning will be more refreshing than feeding, and therefore must be first attended to, not but the

horse may have a bit of choice hay put into his rack to amuse him, if he will eat while he is dressing; but when it has been a long day, and hard riding, many horses will be off their feed, particularly young and unseasoned horses; this, as a matter of course, is to be expected, though it is most to be desired that the horse should feed, which shews a fit constitution for extraordinary labour.

After a thorough cleaning, in which you must be particular to rub his head and ears well, and get him dry in every part, making him as clean as when he went out in the morning, you should carefully examine him all over, to see if he has received any injury from stakes, stumps, boughs, brambles, thorns, rails, flints, &c.; likewise that he is not galled with the saddle, girths, or breast-plate, if he wore one. When the horse has been refreshed with a good cleaning, he will be more inclined to feed than before, but if he will not, make yourself easy, for his appetite will return as his weariness wears off.

On returning home from hunting, it is not uncommon to let the horse drink at some convenient pond; the horse should not be suffered to drink too much at a time, which his extreme thirst might induce him to do, but letting him have about a dozen gulps, ride on to another convenient place, and let him have the like quantity; and thus, by degrees, let him quench his violent thirst before he comes home, which will be better than letting him drink a vast quantity of cold water at once; should this have been neglected, he must have water with the chill off, but not warm, and when his thirst has been partly quenched, he probably will eat.

The legs, from excessive labour, will, of course, be weary, and often inclined to heat and inflammation, particularly if he has been rode among brambles and thorns, the greatest attention must be paid to them. Hot water should always be ready against horses come in from hunting, for the purpose of washing their legs, for nothing is more refreshing to our legs and feet, when they burn with heat and weariness, than soaking in warm water; it opens the pores, and draws the heat and inflammation away, and will be found equally as salutary to the horse as to ourselves. Let the water be hot, but not to scald, or endanger bringing the hairs off, and bathe the legs with it, having a piece of old rug for that purpose, which will

hold much water and heat, and may be laid round the fetlock-joints and pasterns to foment, and draw out heat and inflammation, dipping it occasionally in the hot water as it gets cold: after fomenting the legs well, wipe them as dry as you can, first with a sponge, and carefully search with your hands if any brambles or thorns are lodged in the skin; for your feeling will discover what your eye cannot perceive, and the pores being opened with the fomentation, they will be the more conspicuous, and less difficult to get out. Whatever you discover of this kind, must be picked out with care, so as not to enlarge the apertures they have made, nor break or leave any part of them in; for what is left in must occasion heat and inflammation till nature has expelled it, which she will do by discharging an ichor from the apertures, and thereby thrusting them out, so that scabs and scratches will appear where they have been; but, if carefully taken out in the first instance, much pain, heat, and scabs, will be prevented.

I have known thorns to penetrate deep, and break within the skin, and if such are not discovered and taken out, they will fester, and perhaps form a large abscess; an instance of which occurred with a person I knew, and the ignorant farrier opened it at the upper part, and put therein a tent of lint, dipt in tincture of some kind, most likely myrrh and aloes; had he opened the abscess at the bottom, the pus could have discharged without lodging and corroding the wound, nature would have done the rest, and the wound would have healed without a blemish; but, as it was, a fleshy substance grew within, occasioned by the tent, and though it was after a while healed, it was ever a blemish and eye-sore. I mention the above, to shew the necessity of carefully examining for thorns, and should a similar disaster happen, be sure to open the wound at bottom, so that the pus can discharge itself without lodging, and nature will do the rest, if you do not obstruct her; to assist her you may press the matter out, which will also press the skin down, and prevent the flesh growing inside, which it might do if the wound was kept hollow.

Having carefully searched, and extracted all brambles or thorns, wisp and wipe the legs perfectly dry; and when he is thus refreshed and had his water, if he will not feed, it is most likely for the best, for extraordinary exertion, more than he

has been seasoned to, occasions an inward fever, and till rest and air have contributed to abate this fermentation of the blood, the appetite will not return. Some make themselves uneasy on this account, and wish to administer something; many are for giving a warm mash, which the horse will not eat; then a comfortable warm drink (as they call it) or a cordial ball, all of which is of no service; a dose of physic would be better, or taking some blood away, but I recommend patience till the next day; make him up, therefore, a good bed, and leave him to rest and stretch his weary limbs till the morning.

In the morning I make no doubt you will perceive the horse will feed a little; you must then proceed as before directed, and take the horses out to exercise—those which have been hunted, only to stretch their limbs, which may be stiff and sore, as we find ourselves after any extraordinary exertion, which we are not in the frequent habits of, and repeating it in moderation, will contribute greatly to take off the stiffness—so with the horse, the moving him about will gradually wear off the stiffness, and the fresh air will recover the lost appetite. Though I term this walking exercise, I do not mean you are not to exceed a walk the whole time you are out; that, perhaps, if the weather was very thin and cold, might increase the stiffness; but I call that walking exercise which puts the blood in free circulation without over heating it; you may, therefore, give the horse a gentle canter for a short distance, but not to cause him to break out in a sweat; particularly after giving water, gallop by way of warming it. Choose the airiest place for exercise, such as open downs, or high and dry grounds, and at your return to stable, your horses, if they were not very sick indeed, will find their appetite.

Horses that weary and sicken at a day's hunt, which may be the case with good horses at the first of the season, or young horses till they get seasoned, will require some days to recover before they are fit to hunt again; a week's respite may be necessary with some, others will recover in half the time. The sooner the horse comes to his appetite, the sooner he will be fit for labour; provided you have not been nursing with warm mashes and comfortable drinks, which relax and open the body, and should only be given when the horse is in reality ill; but loss of appetite from over-fatigue, only requires rest to recover it;—slops and medicines

will not hasten the cure, but will unbrace or weaken the system, rendering it less fit for labour, and more liable to a return of the malady, with increased symptoms, the next time the horse hunts.

With regard to heat or inflammation, from the saddle or girths, washing the part with goulard is equal to any thing I have seen applied, and the legs, if hot and swoln with fatigue, may be washed likewise; it is a great repellent and cooler, and should always be kept ready on such occasions. Get the extract of lead from the chemist's, and prepare a quart bottle full at a time, and keep it for use. The manner of preparing it is, to put no more of the extract than will just turn the clear spring water to a milky white; whatever quantity of water you have in the bottle, put the extract to it by drops, shaking it, and when it is turned white there is sufficient; if you put more than sufficient, it will be less and less white, and consequently too strong. Some put a small quantity of brandy to it, which is optional—I see no occasion for it.

The washing the legs with the goulard, will heal or dry the scratches of thorns, and the small apertures they have made, and repel the humours from flying to them, and prevent scabs and the like.

The feet are likewise to be attended to at all times. The horse should never go out of the stable, but, at his return, all road dirt should be picked out, and the feet examined, that no gravel is lodged under the shoes, for such in time would become tender, and cause lameness. When you wash the legs with warm water to cool and refresh them, it will also cool and draw pain out of the feet; water is beneficial to the feet; we find the feet less injured by travelling on wet roads, than on dry ones; and the hoof, at grass, being continually wet with the dew, and moist ground, is in a better state than when kept in the stable; the casual wet you meet with on the roads, or the moisture of the turf or grass you exercise on, will contribute to preserve the foot from the injury which continually standing in a hot and dry stable occasions—one half of the pleasure horses in London are ruined by standing so much in the stable.

In your daily attendances on the feet, you must take notice of the shoes. In the first place, observe that they are all fast, and not worn too thin, and the clenches all flat and smooth, or the shoe broke, as they will be sometimes when worn thin, and the iron bad; that the shoes have

not got into the heels, or sunk in the feet, as they will when horses have not sufficient work to wear their shoes out, before the feet grows over them; in this case the shoes must be taken off to have the feet pared, and put on again, which is called a remove. The ignorance and obstinacy of the old practitioners in farriery were difficult to overcome, but at length have yielded to the superiority of study and science. The anatomy of the horse's foot is clearly understood, and the benefit we derive from it, cannot but rejoice those who recollect the number of valuable horses that were crippled and spoiled by ignorance and error in shoeing. The post-horses, staggers, and hackney coach horses, were comprised principally of crippled horses, or such as were termed groggy in the feet; the poor things stood with their feet forward in the greatest anguish, shifting from foot to foot alternately, for a little ease, and their very countenances were expressive of extreme pain; now, comparatively few such are to be seen. With care the foot is preserved to the last; whereas, formerly, a young fresh horse from the breeder, in the space of two years, his feet getting gradually worse and worse, became unfit and unsafe for a gentleman's riding, and, in his very prime, was cast off to hard labour, rendered more intolerable by unceasing pain.

But, though the improved system is now almost become general, that every person employed in shoeing of horses, knows how it ought to be done, nevertheless, there should be exactness and care which some men will not observe; it may be necessary to apprise the man who forges the shoe, if the horse is apt to interfere, which is called cutting, and likewise if he over-reaches with his hind foot, striking it against his fore-shoe, which is extremely unpleasant; these things may be greatly assisted, or totally prevented, by making and placing the shoe accordingly. The interfering is remedied by leaving the inner heel as high as you can, and paring the outer heel down in moderation; the inner heel of the shoe is made thicker than the outer; this raising of the inner heel throws the fetlock joints outwards or wider apart, which, with that part of the toe that is liable to interfere, being pared close, and the shoe no wise projecting, will prevent the interference, or what is called cutting.

The hind-shoe striking against the fore, which some horses are apt to do, is pre-

vented by shortening the toe of the hind shoes, and not letting it project beyond the hoof when rasped to the shoe, so that if the toe struck, it would be the horn of the hoof that would strike, which will not make that unpleasant noise, which is beyond bearing.

When horses newly shod or removed, go unpleasant or unsafe, which before went safe and well, as is frequently the case, it is reasonable to suppose that the shoes are put on uncomfortably. I have had horses that have gone as if crippled, and have been apprehensive of their falling every step; the shoes, to all appearance, seemed well put on, and no appearance of the nails being too far in, so as to press on a vein, or the like: the cause of this I apprehend to have been, the shoe had only a partial, and not an equal, bearing on every part; the parts that had not a bearing, from not being solid, the driving and clenching drew the hoof to the shoe, which must render the horse extremely uncomfortable. I think these cases are most likely to happen, where you caution them not to put the shoe hot to the foot, for it is difficult for them to fit the shoe to the foot, and be certain that it touches and bears equally on every part, without just applying the hot shoe; and though I do not approve of the shoe being so hot as to sear the foot to fit the shoe, yet the application of the shoe moderately hot, (to show where the shoe bears, and where it does not, that the knife or rasp may take down such places till the bearing becomes equal) is a less evil than putting the shoe on at a hazard, where there is not equal bearing all round. The driving the clenches down over much, may cause pain and uneasiness, but it is not so likely to pinch when the shoe sits solid, as when it does not.

When occurrences of extreme uneasiness happen immediately after shoeing, I recommend the shoes to be immediately taken off, and, though the farrier may insist nothing was amiss (for we are none of us fond of acknowledging an error that cannot be brought home to us) yet he may be careful to remedy the cause, whatever it may be, whether from the shoeing being too tight, or a nail struck too far in, unequally bearing, or the like. Not that you are to expect horses with bad feet will go as pleasant in new shoes as old; those with thin flat feet, and such as have been shod after the old system, having the bars of the feet pared away, and the heels contracted, will, till the shoes have

got settled to the feet, go more tender and unpleasant.

The substance and weight of the shoe should be proportioned to the work and employment of the horse; never load the foot with more iron than is necessary to preserve it; if the horse's foot is light, let his shoe be light also, and if he works principally on the road, his shoes should be somewhat stouter.

The casual incidents that occur should be attended to, such as bruises, pricks, kicks, treads, and the like, which, if not very material, may be administered to, and cured without the aid of a veterinary surgeon; the injuries the bottom of the feet sustain, are generally from picking up nails, bruises on sharp flints, broken bottles, stumps of trees, and the like; these generally require the farrier to take off the shoe, and examine the wound, that nothing is left in, and a dressing of their hot stopping, with a few days rest, will effect a cure. Bruises and treads between hair and hoof, may become serious injuries if neglected; the material thing is to keep them clean, and apply some balsamic tincture, such as myrrh and aloes, friar's balsam, or the like, which may be procured at any chemist's; bruises from blows, kicks, and the like, should be bathed with any kind of repellents, such as cold vinegar, brandy, or goulard, any of which will contribute to disperse the bruised blood. All kinds of green wounds may be cured by the application of the before-mentioned balsams, which defend the wound from the effects of the air, (the air causing wounds to rankle and fester) and where a bandage cannot be applied, will be found preferable to ointments and salves. Old ulcerated wounds, that have horny or proud flesh growing, or become pipey and fistulous, require the aid of the cautery or knife, and here I recommend the assistance of a skilful veterinary surgeon.

Some horses with brittle hoofs, when the roads are hard, will put out a sand-crack; this, if neglected, would become a very serious injury, but if taken in time may be prevented. You will perceive the horn of the hoof to crack or open from the coronet downwards, at first discovering, perhaps, not more than an inch in length, but, if neglected, would soon be all through the horny part of the hoof from top to bottom, and then it would take a length of time to cure, and the horse will all that time be unserviceable. But, in the first instance, as soon as dis-

covered, take a cauterizing-iron and sear the hoof cross ways, at the bottom of the crack, moderately deep; this will prevent the crack from opening further: then, in like manner, sear the top just above the hoof, or what is called hair and hoof; this is to prevent the continuance of the crack as the hoof grows, which would be the case if this method was not taken to prevent it: then melt some Burgundy pitch, and fill up the crack, with the blade of a knife, dressing the seared places, to prevent the dirt and gravel getting in: let the horse rest a day or two, and then you may work him moderately.

Grooms in general take upon themselves to bleed and physic at their own discretion; it is, therefore, necessary to assign some reason, and to shew when and for what purpose such methods are to be pursued; it is best to pursue such methods as preclude the necessity of either, for, with proper feeding, exercise, and grooming, there will seldom be occasion for physic; but sloth or idleness is the parent of disease, and thus it happens with horses, when they are well fed, and have no work—the vessels get filled and overcharged, the economy of the whole system is obstructed, and cannot perform their several functions; the stomach cannot digest its food; the blood-vessels get too full, and have not a free circulation; the lungs are oppressed, and have not free expansion, and, if timely relief is not given, a catalogue of disorders must ensue, for nature will discharge or unburthen herself some way or other. When any symptoms of approaching illness or disorder appear, which may discover itself in various ways, such as refusing his food, languor and dullness, heaviness of the eyes, heat in the mouth, swelling of the legs, itchings, breakings out, &c. it will in general be proper to bleed, as a check, or an arrest, to the advancing malady.

You now compare symptoms and circumstances together, to account for, if possible, the cause of the complaint; if the horse has been well kept, consequently full of flesh, and no work, (for I do not call walking a horse about to stretch his limbs, which lazy grooms will do, and are afraid of sweating them because of the trouble of cleaning them, sufficient to keep a horse in health,) you may reasonably conclude the vessels are overcharged, and evacuations must relieve them; in this case, going through a course of three doses of physic will prevent the threatened or

approaching disease, and restore the horse to health and vigour.

It may so happen that a horse over-fed, and too little worked, may not discover any symptoms of ill after a day's riding or work, as some would call it, and from that circumstance you might not attribute it to the want of exercise, but in this you may deceive yourself, for the malady might be in the horse before the work, and the unusual exertion might cause the discovery sooner than otherwise it would; the like remedy, therefore, is to be pursued.

If the horse has been in regular work or exercise, young and tender constitutions will sicken at unusual exertion, which is termed taking too much out of them; in this case, the loss of a little blood, with a day's rest, will restore them. But sometimes taking too much, and at the same time when the horse is very hot, suffering him to cool too fast, will give him cold and cause a fever; in this case I bleed more copiously—give him plenty of diluting water, with a handful of oatmeal stirred in it, or boiled gruel, letting it stand till it is cold; if he will eat, mashes will be proper for him, as more light of digestion, and keeping the body open; a mild dose of physic may be given for this purpose; but, if you notice at the first, that the horse does not dung or empty himself as usual, (for, as you may observe, a horse in health will empty himself several times a day, as you scarcely go to stable but you have dung to remove from behind him,) in this case the horse should have immediate relief, by raking, and the application of a glyster; any sort of liquor that can be conveniently had, will answer the purpose to soften the hardened excrements, such as warm liquor, gruel, with a bit of lard in it, or the like, and be sure not to administer it too hot; but first let a lad, or any person with a small arm, rake or remove the hardened excrement lodged in the fundament, by larding the hand and arm, and introducing it up the anus; the hardened excrement may be felt, and by little and little taken away, and then the injectment of the glyster will not be impeded; the administering of a glyster, in the first instance, will very often effect a cure, and the horse will be fit for work in a few days. Should the fever continue without abatement, after the ducts are open, in the first instance letting blood and opening of the body, keeping the horse clothed, to prevent cold and promote perspiration, if nature is in-

clined to throw it off that way, and frequent leading in the air, when it is mild and salutary, (but not if cold or piercing, such as would obstruct perspiration, or check the operation of physic,) will, in general, effect a cure; should the fever continue violent, I administer James's powder, and I believe it to be as efficacious as any fever-drinks or powders that can be given: yet, after all, nature does the work, for this is only working with, and assisting her. The obstruction of nature causes disease, the continuance of thwarting and obstructing her will occasion death: if nature is sufficiently powerful to operate, she will of herself effect the cure in in time; but if the disorder is too powerful for nature, she must be assisted, or the horse will die. Assisting nature, therefore, effects or facilitates the cure, and should be always attended to, so that your remedies may second and assist her operations.

When horses take a violent cold, attended with a cough and the like, many will be nursing them in the stable, not letting a breath of wholesome air blow on them, and feeding with warm mashes, giving them comfortable drinks, and cordial or pectoral balls. I must confess I have done the same, but am of opinion it never forwarded the cure. When nature effects the cure, whatever may have been the means applied, it is natural to suppose they effected or restored health, when it is possible they might rather have impeded than assisted in her operations; and this, I believe, is frequently the case in colds. When a horse takes cold, I perceive him to be affected exactly in like manner as myself when I have a cold on me; the offended or obstructed matter seeks to discharge itself by some means or other; sometimes a slight external cold, which may only occasion a stiffness or soreness in the part it was taken, nature throws it off by exercise, perhaps with sweating it through the pores, or through ducts or channels imperceptible to us; sometimes it flies inwards, and affects the bowels, which may cause violent inflammation and fever; at another to the lungs, which brings on the cough; mostly to the head, occasioning a running or discharge at the nose, and sometimes with eruptions and breakings out through the skin. Now, as I would treat myself under such circumstances, so I treat my horse. If it is slight, I keep myself warm, take air and exercise, and leave nature to herself, who, in slight cases, will do better without your

assistance than with it; but if the attack is violent, I am perhaps more kind to my horse than myself, for I endeavour at a speedy cure for him, without consulting his liking, (whereas I have such an aversion to bleeding and physicing myself, that I defer it till I perceive it cannot be done without,) and then never apply to physician or apothecary, but with an emetic or cathartic set the doors open, and let the enemy escape as quick as possible. A horse cannot easily be made to vomit, and therefore it is never attempted by me; but bleeding, purging, staling, sweating, and rowelling, are the usual channels that disease retires by, when skill or medicine attempts to dislodge her. Comfortable drinks and cordials I never administer, not that I think they do injury where the bowels are not attacked with inflammation and fever, but because I think they do no more good than my eating a spiced gingerbread nut, which I should never take to cure a cold, though I am fond of them, yet, because I like them, I may be induced to eat them, and say they are exceeding good things to warm the stomach, and keep the wind out on a cold morning, thereby prevent taking cold; but, when the lady has got deep hold of me or my horse, I don't resort to them for a cure.

In the first attack of a cold, warm clothing will assist nature in any of her operations; if no fever attends the cold, moderate exercise in the clear air, such as will warm and keep the blood in free circulation, without heating him, will be far better than standing in the stable breathing a confined air, which is hurtful to the lungs, and increases the cough; should the cough be bad, and the breath short and oppressed, take about two quarts of blood away, and it will greatly relieve both, and give a gentle dose of physic; let the chill be taken off his water, but if he will drink gruel, it will be better for him; regard should be paid to keep the horse in the dry, and care that he does not take fresh cold: thus, with warm clothing, air, and gentle exercise, with a dose or two of physic, will a cold be got rid of sooner than with stable-nursing, mashies, and cordial-balls.

Should a fever attend the cold, the horse will be off his feed, become languid and weak, and consequently cannot be exercised, otherwise than being led out for the air in the mild and clearest part of the day; but in other respects the like methods may be pursued; bleeding and physicing are the likeliest means of abating

the fever, and dislodging obstructed matter, which is the cause of it.

It gives me no concern or uneasiness when the horse is off his feed, and cannot be brought to eat; this is the natural consequence of fevers, and till the fever is abated, it is best for him not to eat, as food would increase the disorder. If he will drink plentifully of gruel that has been well boiled, and made moderately thin for him to drink, he will take no harm by not eating. When the horse is led out for air, let the stable be cleaned and aired as much as possible, for the very breath of the horse, in a violent fever, is sufficient to contaminate the confined air, and fresh wholesome air will greatly contribute to the recovery of the horse.

When the above methods have been taken in time, they generally effect a cure; but if the fever is very violent, further means may be necessary—sweating and rowelling are resorted to, but, as I observed in the first instance, James's powders will be equal to any sweating that can be given; and as to rowelling, it is disagreeable to most people, and therefore is generally the last thing resorted to, and for which reason I think it is not practised one quarter so much as it was formerly. It is mostly necessary, when there is a violent flux of humours flying about the horse, occasioned by a long continuance of foul and bad feeding, whereby the whole mass of blood is impoverished, and is in a more or less corrupted state; these aqueducts may then be opened to draw away the foul matter from the blood, and in time will effect a complete change of the system.

When the above description of horses fall into people's hands, they occasion a deal of trouble and perplexity to get them to rights, and many are not worth the trouble when you have done all you can; we frequently find a subject like this in a young horse, that probably was got from a good stock, but bred on a bad soil. Some people may suppose, that if the horse does not work, it matters not what he eats, so that he finds something to eat and fill his skin with; horses that are turned out to shift for themselves in various kinds of wastes, that afford no good pasturage, must eat such as they can find, and if the quality is bad and improper, the constitution must be weakened and injured thereby; for it is evident that every animal is materially affected by the food that he eats; even the butter of one dairy is found to be far preferable to a

contiguous one, owing only to the difference of the pasturage; no wonder, then, if a horse which has subsisted for years in swamps and wilds and wastes, eating nothing but faint, foggy, and deleterious food, till he is thought fit to be made up for market, should, when he comes to stand in a stable, and do a little work, exhibit a weak debilitated state of body, that is incapable of work, and the legs swell and fly to pieces, as they term it, if he stands still.

When a person unfortunately has a horse of this description, (for it is only a few that are capable of judging of the constitution of the horse by external appearances, and these horses frequently show good shape, good action, and spirit that recommend them to a purchaser,) he soon discovers a necessity of putting him in condition, and this I find has often baffled the endeavours of the most skilful. As soon, therefore, as the legs begin to swell, and get round, the horse is pronounced to be very foul and full of humours, consequently he must have physic. Physic is administered, and while the physic is in operation, the legs become fine, and the virtue of physic is highly extolled from such favourable appearances. The physic having done working, in a day or two the legs get round again, and consequently another dose of physic is given, which brings the legs fine, while the physic is in operation, and still great dependance is put on the efficacy of the physic; but as before, so again, no sooner has the physic gone through the horse, than the legs again swell; nevertheless, a third dose must be given, which, terminating with no better success than the other, a short respite is taken to observe if the legs will gradually become fine after such a course of cleansing; but if extraordinary care is not taken, they soon show evident signs of being worse, and then a consideration takes place what is further to be done: sometimes a repetition of the physic is pursued; at others, a course of diuretic balls, which in general I have observed to be attended with no better success than the physic; leaving off, therefore, apparently no better than they began, they of necessity now take to the means that should have been pursued from the first, that of using every method of preventing the legs from swelling, for otherwise the horse's heels will break out in chaps and sores, discharging a thin offensive ichor, and, if neglected, would soon spread up to the houghs, and become what is called the grease. The

above description and process, I think, will be acknowledged to be correct by those who are conversant with horses and the practice of grooms.

I have now to give my opinion of the cause and the method I think most likely to cure.

I attribute the legs to swell from one or other of the following causes:—

First, from over fatigue or labour; in which case I have recommended warm fomentations to draw out the heat and inflammation (for warm water certainly cools, as we experience in ourselves); if the feet are swollen and heated with overwalking, rest and moderate exercise, with the fomentation, will restore them in a few days.

Another cause of the legs swelling, is the want of exercise; in this case the blood gets too gross or thick, which causes the grosser parts to lodge in the extreme fine arteries, the most distant or remote from the heart, and this causes swelling and inflammation; this matter must again be put in circulation, and expelled through bleeding, physic, or exercise; if it is taken in the first instance, and no other symptoms appear with it, regular exercise will carry it off, discharging it where it should have been expelled before, through the pores of the skin by gentle perspiration; but if let alone too long, bleeding and physic may be necessary to bring the legs fine, and, as I have mentioned the cause, care should be taken that such cause should no longer exist, for the parts being weakened by the malady, if exercise in moderation is not given, the swellings of the legs may again be expected.

The third and last cause that I can assign for legs swelling, is a corrupt, bad, and impoverished state of the blood, occasioned, as I apprehend, by a long continuance of poor unnutritive food, which has weakened and enfeebled the system. Now, in the other instances, the richness of the blood caused the malady; in this the poverty and feeble state of the blood causes it to loiter in the fine arteries that are enfeebled and remote from the heart, which is the spring of action; and this accounts why physic does not effect or promote the cure in this instance, as in the preceding one, because physic for a time weakens and relaxes the system; and it is the nutritive food, with proper exercise and air, that strengthens, invigorates, and braces the system.

While the physic is in operation, the blood is put in quicker circulation, which

causes the legs to be fine for the time, but, the operation over, the parts are weaker, and less able to dislodge the loitering malady than before; too often repeating the physic I think detrimental, and what now should be aimed at is to use means to prevent the blood from loitering and lodging in these parts, which renders them still weaker and weaker, till the system is renovated by alterative medicines, and clean wholesome food, with regular exercise.

To prevent the legs swelling, walking exercise and air, in the morning and afternoon, and bandages by night, are necessary, for you will find when the horse has stood six or eight hours, his legs begin to swell; for a bandage procure rollers of canvas, or such like stuff, sufficiently long to bind round the pastern and fetlock, up to the houghs, and to prevent the bandage pressing improperly on the tendon or back sinew, lay pledgets of hay-bands, nearly untwisted, and moistened to make them sit comfortable on each side up the sinews, so that the bandage may press those parts which lie in a hollow, and are most likely to swell.

The offending matter lodging in the extremities, renders the parts weak, and the more they are assailed, the weaker and less able they become to perform their functions; the bandage will prevent the humours lodging there by night, and the exercise by day, and the parts will, as the blood gets refined or rectified by proper food and exercise, with alteratives, recover their strength and vigour, and then the bandages are no longer necessary.

If, as it often happens, where horses are not properly attended to, but are let alone till the heels chap and become running sores, (which they will do in any of the instances, if neglected) you must be mindful to wash them with warm water, and keep them very clean, for the humour issuing from these sores is sharp and offensive, and if not kept clean will spread very fast, and occasion such soreness that the horse cannot move his leg at first without extreme pain, because the chap is thereby opened. If the chaps are slight, not attended with much inflammation, and no appearance of small pustules issuing an ichor, and scabbed, I should judge them to be occasioned more by neglect than by disease, in which case, after washing them clean and drying them, you may apply some white drying ointment, which you can procure at any chemist's, and with care and keeping clean, they will soon

be well. But if they have originated from the cause I am now treating on, from a vicious and bad state of the blood, and suffered to get to this length of chaps in the pastern joint, and scabbed about the pastern and fetlock, they must be poulticed, to draw the sharp and offending matter from them, for such cannot be repelled and thrown into the circulation again: after poulticing a few times, washing also, and keeping them clean, you will perceive the pain and anguish to have subsided; you may then let them heal and dry, and use the means as above of preventing the humours from lodging there.

Goulard water, as I have before mentioned, is a great repellent and dryer, and may be used to repel humours from settling till thrown off through other channels, such as bleeding and rowelling, gentle cathartics, and mild diuretics; but the two last I recommend to be mild, and not often repeated, lest, while you correct one part you weaken another.

The best constitutions require much attention to the legs, with the daily rubbings, as I have directed, but extraordinary care is requisite in these constitutions which are termed foul and gummy-legged, such are the appellations given to this description of horses.

Malenders, salenders, and scratches are species of the same disorder, making their appearance in the joints of the hough and knees, and the scratches on the legs; these I attribute entirely to filth and neglect, seldom making their appearance where horses are in any degree looked after: the means prescribed for the gourdy or greasy legs will also cure these, but with all care and cleanliness.

Another occasion for physic will be when you perceive a horse to be infested with worms. Horses, who labour under this complaint, do not always void them in their dung, but may be judged of by appearances, such as the horse not thriving on his food, the coat having a dull appearance and staring, the carcase tucked up and hide-bound, and the horse greedy and ravenous—these are the usual symptoms.

The most certain cure that I know of, (for I have tried various recipes, that are handed down from one groom to another, as certain of destroying them, without effect) is calomel. If, therefore, you apply to your veterinary professor, for mercurial physic, you will have it ready prepared; but should you have plain physic by you, and are so situated that you cannot conveniently

procure it ready prepared, you may get the calomel at any chemist's. I usually give a drachm and a half, and from that to two drachms, for a dose, according to the size or constitution of the horse, and when it is not made up in the physic, I give it in the following manner. I moisten a handful or two of bran in a bowl, and strew the calomel in it, mixing it well together, this I give the horse over-night, and the next morning his physic. I think it necessary to caution you to be careful not to lay the calomel heedlessly about, nor administer it in larger portions than directed, because much mischief, or inevitable death may ensue.

The calomel being given as directed over night, you must be certain that the physic is taken the next morning, and the only difference of ordering your horse is to be careful that he does not take cold, for mercury is very searching and penetrating, and if checked in its proper course, will certainly take a course that is not desirable; additional cloathing to what the horse has been accustomed to, and agreeable to the season or temperature of the air, should be put on; keeping him in the dry, and from any sharp penetrating winds, and letting his water be warm—I don't mean hot, but something under blood warm, for sometimes I call the blood hot; you require the horse to drink plentifully in physic, but the warmer the water, the less he will drink of it; nevertheless, with mercurial physic, don't let it be too cold.

Three doses of mercurial physic will be sufficient.

When horses under the predicament of lameness, so that they cannot work, are likely to be idle for several weeks, feed sparingly, and occasionally give a moderate dose of physic, to prevent consequences arising from idleness; but when in health, exercise precludes the necessity.

Blistering and cauterizing are remedies frequently practised, or at least recommended by grooms; there are circumstances in which they may be necessary, but many times they are advised by the grossest ignorance, and the person thinks himself of no small importance in proposing remedies, as he imagines it shews him to be a great adept in his profession. Farriers, frequently as ignorant as the grooms, find an interest in being on good terms with them, and therefore seldom oppose their opinion; so that if a consultation is held between master, groom, and farrier, two

to one are certain to carry the proposition, and the horse is sometimes needlessly tortured.

The cause of lameness in a horse, where there are no external appearances, is sometimes so difficult to find out, that I have known four persons give as many opinions of the seat of lameness, and perhaps not one of them right. Where the seat of the disease is not to be ascertained, I shall not pretend to prescribe a cure; but it sometimes happens that a horse puts out what is called a curb, becomes sore, and occasions lameness; this taken at first appearance, is removed, and perfectly cured by a blister, but if you let it continue for a while, the substance will increase, and be more troublesome to remove, requiring a stronger blister, or twice blistering; other extraneous substances, at their first appearing, such as splents, (substances growing on the shank bone, which, if small, are not worth notice, but if large, and growing near the back sinew, will be troublesome, and cause lameness) may be removed, or greatly assisted, by blistering. As may, also, if taken at an early period, spavins, and thorough pins, which are hard bony substances forming on the joints of the houghs, &c. any such extraneous hard substances taken in the first instance, may be greatly reduced by blistering.

When horses have for a length of time been accustomed to excessive labour, whether from hunting or road-riding, their sinews and joints will become what is termed bumed, that is, the pastern-joints and sinews will become enlarged and stiff. Exercise or work in moderation, is not only conducive to health, but likewise strengthening and bracing to the whole system; but we find the best things, taken or used to excess, become pernicious and hurtful; without labour, the joints and ligaments get relaxed and weak, which causes the horse frequently to make a drop, and many a good horse on sale has been rejected for a circumstance of this kind, which regular work would have removed: but again, when the labour for a continuance has been excessive, the joints and sinews become more enlarged; then rest, with the ordinary means of grooming, will restore them, but the horse at first going out will appear very stiff, and sometimes lame; turning them out for two or three months, may refresh the legs, and bring them somewhat finer, but still where the sinews have been much oppressed with heavy or long continuance of immoderate work, a weakness will remain,

and blistering will be advisable. Now as the blistering should be previous to the turning out, the judgment is to determine whether there is a necessity for both; if the horse is but little gorged about the legs, and but little stiff at first going out, without any perceptible weakness or lameness, the turning out I should judge would sufficiently restore him; but, on the other hand, you must blister and turn out. I cannot persuade myself that blistering is good, if there is not the necessity for it, though I have known several that make a practice of it, alleging that if it does no good, it does no harm; how far that doctrine may be just, I will not take upon me to determine; but I know it puts the horse to a deal of pain, and without proper care is taken, the horse may be greatly disfigured by it.—See BLISTER.

When horses have been hard worked, turning out is a natural consequence, to refresh their limbs, but they are also turned out when not wanted for present use. The hunter, when the season is over, is turned into good grass to cool his body, and refresh his limbs, which, if he has been regularly hunted the season through, must stand much in need of it; but if only occasionally, and he is wanted for the road, there is no necessity for it. I have known horses to be kept in stable a dozen years, without eating any green food, yet have continued in health and condition; there are some constitutions in horses that will not thrive and look well in the stable for any continuance, but get tucked up, hide-bound, and dead-coated; yet such, in my opinion, are not worth keeping; they will have a tolerable appearance, after a month or six week's grass, which is the best time to dispose of them, for they will soon return to their former state in the stable, with only having moderate work. I would not have it understood that grass is improper for horses; on the contrary it is very good where they can be spared; and pleasure-horses that are only moderately rode, may be kept to grass and worked occasionally, all the summer, giving them corn when they work. It is for appearance and ability to do extraordinary work, if required, that condition is in such request. The horse that runs at grass, and is worked all the summer, is soon got into condition for hunting in the winter, for

his occasional working prevents him getting over-fat and gross with the grass; and without physicing when taking him up, give him dry food, with some good sweats, and he will soon be in wind and condition for hunting.

Turning out in winter to a straw-yard is a custom with those who keep a horse for pleasure in the summer, and have no occasion for him in the winter; they will tell you how beneficial it is for the horse, cooling to the body, and bracing to the limbs; but these arguments do not meet my concurrence. To keep horses in stable is expensive, and where exercise is not convenient to be given, is injurious to the horse; but not so hurtful as to be nearly famished. When a horse has been rode hard all the summer, his legs may become gorged, and require rest to refresh and bring him about, and this may be the only season he can be spared; therefore, under all circumstances, it is more convenient than beneficial for a horse to be turned out in winter.

When it becomes expedient either for the refreshment of the horse's limbs, or the sparing of the owner's pocket, I cannot but recommend that the horse should be prepared for the extraordinary change he is to undergo, by first leaving off his cloaths, then removing him to a cooler stable, leaving off dressing, giving him less, at last no corn, and by degrees to an empty stable or shed to lay under.

When gentlemen have conveniences of their own, to turn horses out in winter, there is no doubt of their being taken care of; in open weather there is much pasturage, and in hard weather an out-house or stable to lay in, with plenty of hay. A horse may be benefitted by a winter's run of this sort, but I am alluding to straw-yards, where they take in all that come, and account they do well by them, if they keep them alive.

Green food in the stable, as a cooler and alterative, is admissible, and highly proper, for some constitutions will not do well without it; dry food for a long continuance not agreeing with them, and no quantity of dry food that you could give would make them thrive, but they will be lank, do all you can.—For further observations on CONDITION, see HUNTER and TRAINING.

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CONFORMATION OF THE HORSE, EXTERNAL. As the powers and qualities of this useful animal are known to depend considerably on his external conformation, it is a point which has long and deeply interested the gentlemen of the turf, and others who have given their attention to the improvement of the breed. Of the few modern writers who have treated the subject scientifically, there is none, perhaps, more worthy of attention than Mr. Lawrence, of Birmingham, who, in his elegant publication, entitled—*An Inquiry into the Structure and Animal Economy of the Horse*, makes the following remarks:—

As deformity, says he, is constituted by a want of harmony in the component parts, it will not be difficult to perceive, that a long head and a short neck, or a short head and a long neck, cannot be esteemed handsome.

The neck should proceed in a line from the top of the head, forming a regular progressive curve to the withers. The trachea, or windpipe, should be large in diameter, and somewhat detached from the fleshy part of the neck. The size of its diameter has a considerable influence in respiration. Large windpipes are peculiar to blood-horses, whence, probably, they are better winded than all others. The chief beauty of the forehead depends on the union of the neck with the shoulders. The neck should issue high, and nearly in a line with the withers, and its lower part should enter the chest high, and above the point of the shoulders: the opposite conformation to this produces what is termed an ewe-neck, which can never be esteemed handsome.

The shoulders constitute the centre of motion in the fore part of the body; and the extent and elasticity of that motion will depend chiefly on the position of the shoulder-blades. The connection of the shoulder-blades with the body is established by muscles only, independently of any joint whatever. It is by the alternate contraction and extension of these different muscles that motion is produced, and it is by their united elasticity that the shock is broken when in action.

This would not have been the case, had the shoulder terminated in a fixed joint. The truth of this remark may be ascertained by riding alternately on the withers and the croup, and comparing the difference of their respective motions.

As it is the office of the hinder quarters to propel the body forwards, it is necessary that they should be closely united with the body by means of joints. But, on the other hand, as the fore quarters are chiefly employed in sustaining the equilibrium of the machine, the concussion which must have been produced if they had been united to the body by joints, would have been considerably greater than what is produced by their being attached by muscles only. In describing the action of the shoulder, it will be necessary to consider its position when in a state of immobility.

The scapula, or blade-bone, is placed obliquely from the chest to the withers, and the centre of its action is fixed in the middle of it.

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In its action, it describes as large a portion of a circle as the extension of its muscles will admit. If this portion of a circle, for instance, be ten degrees, and two different scapulæ possess the same degree of extension, the one situated obliquely, the other perpendicularly, it must necessarily follow, that, acting on their respective centres, the one which is oblique must elevate its lower extremity higher than that which is perpendicular, and consequently will increase the projection of every part of the fore-limb. Hence it appears, that an oblique position of the shoulder is most favourable for progression.

The shoulder may want liberty, either by being too fleshy or too lean. In the first instance, it is overloaded; and, in the last, it possesses not muscle sufficient to enable it to perform its functions with strength and celerity.

The muscles of the chest contribute greatly to the motion of the lower part of the shoulder. Hence a strong and moderately full chest is to be preferred to one that is narrow and meagre. It will probably be urged, that horses are sometimes possessed of great speed whose fore-hands in nowise agree with this description; but such horses are generally endowed with particular powers in their hinder quarters. The fore quarters are merely passive, and extend themselves to receive the weight of the body; and, if they are sufficiently strong for that purpose, the animal may certainly move with considerable velocity; but thence it is not to be inferred that a greater velocity might not be produced, if both the fore and hinder quarters were alike perfect in their conformation.

The fore legs will next come under consideration, on the good structure of which the safety and ease of the pace of the animal will chiefly depend.

A horse whose legs are twisted, or improperly placed too far under his body, may possess great speed; but that his action must be imperfect, the following reasons will sufficiently demonstrate:

If the foot turns either inwards or outwards, it cannot alight flat on the ground, in which case the position can never be firm and steady; because the pressure will be partial on either the inward or outward quarter of the foot. If the leg is not perfectly straight from the shoulder to the foot, its action cannot be true, nor the centre of gravity so readily found, as by one that is even and uniform in all its parts. If the elbow incline inwards close to the ribs, the leg must be thrown sideways when in action, which will remove the foot too far from the centre of gravity, and produce a lateral rolling motion, very unpleasant to the rider. Again, if the legs incline too much under the body, they will be overloaded, and the freedom of their action will be reduced in proportion as they are oppressed.

The fore legs, to be perfect, should, in a front view, be widest at the chest, gradually approaching each other downwards towards the foot, and descending in a perpendicular direction to the ground.

The upper part of the fore-leg, next the shoulder, should be broad and muscular.

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The power of elevating the knee, and throwing the leg forwards, depends much on the size of the muscles in this part.

The knee, in a front view, should be broad, flat, and square; the lower part of the limb, between the knee and the fetlock, should be short, flat, and wide in a lateral view. The tendons should be distinct, firm, and detached from the bone. The fetlock should correspond in proportion with the rest of the leg, neither too upright nor too sloping. If it is too long, its ability of sustaining the weight of the body will be diminished; and, if it is too short, it will be liable to knuckle over. Short pasterns are generally attended with contracted feet, the weight of the body not being thrown so much on the heel as is the case with long pasterns.

The general proportion of the limb is constituted by two equal divisions, viz. from the elbow to the knee, and from the knee to the ground.

The length of the fore leg should correspond with that of the hind leg; that is to say, the elbow should describe a horizontal line with the stifle, otherwise the harmony of motion is lost; as is the case in a carriage, where the fore wheels are of a smaller diameter than the hinder wheels, on which account they are obliged to perform three revolutions to two of the latter.

BODY. The common appellation of this part, amongst horsemen, is the carcase. Thus a horse is said to be long or short in the carcase. A horse which is short in the carcase is usually *ribbed home*, as it is termed, that is to say, there exists but small space between the last rib and the hip-bone. This conformation is justly esteemed excellent. A horse thus formed is generally short in the back and wide in his loins, and better adapted to carry weight and bear fatigue than a horse of a different form.

Horses of this description, however, are commonly supposed to be deficient in speed, from the idea that they have not sufficient length. But when it is considered that the trunk or body has no motion of itself, but is entirely acted upon by the quarters and extremities of the animal, it is manifest that the length should exist in these parts, and not in the body. In proof of this, two horses may be found exactly of the same length from the point of the shoulder, at the chest, to the point of the buttock, and yet one horse shall be long in the carcase, and the other short.

The fore part of the carcase contains the heart and lungs, and should therefore be sufficiently capacious to admit of a free action in those viscera. Horses with flat ribs experience a greater pressure from the atmosphere in their breathing than those do who have their ribs more arched; consequently, they are not so well adapted for respiration. The posterior part of the carcase contains the stomach and intestines, and is generally round and capacious in horses of a strong constitution. The back should sink in a small degree behind the withers, and proceed in a straight line to the end of the loins, and thence fall gradually to the tail. A hollow back renders the motion of the animal easier to the rider, but certainly cannot be so

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strong as one that is straight. A roach or hog back constantly throws the saddle forwards on the shoulders—a circumstance productive of great inconvenience to the rider.

The loins should be wide, and the hips low. The distance of the point of the buttock from the hip should be considerable. The lower part of the buttocks, in a posterior point of view, should be wider than the hips. The tail should issue from the croup in a regular progressive curve, and not appear as if it was stuck into the rump.

The hinder quarters may properly be considered as the main spring of the whole machine. This is clearly demonstrated by the superior size of the muscles, and the angular position of the thigh bones.

It has generally been the custom to attribute the source of motion principally to the fore quarters, under the idea, that if the fore quarters could move well and with speed, the hinder quarters must naturally follow. The fallacy of this doctrine may be easily exposed. In the action of a self-moving body, the posterior part generally constitutes the fixed point from whence the motion takes its origin. Thus, if the horse leans forwards, the centre of gravity ceases to be supported, and he is obliged to advance one of his fore legs in order to recover the equilibrium. Again, if the chief source of motion exist in the fore quarters, whence does it arise that many good fore-quartered horses are bad leapers? The reason is obvious: from weakness in their hinder quarters; for the principal strength of a horse lies in the muscles of his thighs. Therefore, a horse may rise well at a leap, and clear it with his fore legs, but cannot bring his hinder legs over, unless the muscles of his thighs are sufficiently powerful.

It may be urged, that leaping differs from galloping; but galloping is, in reality, constituted by reiterated leaps on a plain surface. Hence the necessity of a good conformation in the hinder quarters.

Of this doctrine Mr. Lawrence adduces a strong instance in the celebrated horse, Eclipse, unquestionably the most speedy horse of his day; for it seems his fore quarters were very ill formed, and his shoulder low; but his hinder quarters were furnished with strong muscles.

“Of symmetry, or shape, (Osmer observes,) if it should be asked, why the get of the Godolphin Arabian were superior to most horses of their time, I answer, because he had great power and symmetry of parts (head excepted), and a propriety of length greatly superior to all other horses of the same diameter of carcase, that have been lately seen in this kingdom. This I assert, not on my own judgment alone, but on the united opinions of those who, I believe, understand horses much better than I pretend to do: and it is very probable, this horse, if he had not been confined to particular persons' mares, might have begot better racers than any he did. On the contrary, I have heard it urged in regard to his blood, that he was a very mean horse in figure, and that he was kept as a teaser to Hobgoblin, some years before he covered, when he got Lath out of Roxana, in 1731. What does all this prove? I think nothing more, than that

C O N F O R M A T I O N

his first owner did not understand rightly this kind of east-country horse, and that different men differ in their opinions of the horse's conformation.

It has been said, that the get of the Godolphin Arabian had better wind than other horses, and that this perfection of the wind was in the blood. But, when we consider any horse thus mechanically made, whose levers acquire more purchase, and whose powers are stronger, than those of his adversaries, such a horse will be enabled, by this superiority of mechanism, to act with greater facility; and, therefore, it is no wonder that the organs of respiration (if not confined or straitened more than his adversaries') should be less fatigued.

The question, then, is, whether this excellence of horses is in the blood, or in the mechanism and proportion of the horse? Whoever is a stickler for blood, let him take two brothers of any sort or kind, and breed one up in plenty, the other upon a barren heath; I fancy he will find, that a different form and mechanism of the body will be acquired to the two brothers by the difference of their living, and that the blood of him brought up on the barren heath will not be able to contend in racing with the mechanism of the other which has been brought up in a land of plenty. Now, if this difference of shape will make a difference in the performance of the animal, it will be just the same thing in its consequences, whether this imperfection of shape be produced by scarcity of food, or entailed by the laws of nature; if so, does it signify whether the colt be got by Arab, Turk, or Barb, or what kind of blood his dam be of? Indeed, where shall we find one certain proof of the efficacy of blood, in any horse produced in any age or any country, independent of the laws of mechanics?

If these things are so, have not we and our forefathers been hoodwinked all our lives by the prevalence of a ridiculous custom, and mistaken system, whereas, by consulting our own reason and understanding, this mist of error would have fled before it! If this mechanical power was considered as it ought to be, it would excite a proper emulation among all breeders; and, when the excellence in the breed of horses was found to be the effect of judgment, and not of chance, there would be more merit as well as more pleasure, in having bred a superior horse or horses. Add to this, mankind, by applying their attention to this mechanism of animals, would improve their judgment in the laws of nature; and it would not only produce a much better breed of racers than any we have yet seen, but the good of it would extend to all sorts of horses throughout the kingdom, of what kind soever, in a few generatious.

Finally, when speaking of the higher class of horses, instead of the phrase *high-bred*, well-bred should be substituted; and this not even then be understood to mean any thing more than that they are descended from a race of horses, whose actions have established their goodness: preferring the mechanical powers of a horse, to all simple opinions concerning blood, which is, in reality, no more than a vain chimera, when taken alone for argument.

Terms generally made use of to denote the parts of a horse.

1. The vertebræ of the neck.
2. The sternum, or breast.
3. The scapula, or shoulder blade.
4. The humerus, or bone of the arms.
5. The radius.
6. The ulna.
7. That part of it called the olecranon, or elbow.
8. The ribs; eight of which are called superior ribs, connected with the sternum, the others are called the false ribs.
9. The bones of the carpus.
10. The metacarpel bone.
11. The great pastern.
12. The little pastern, or coronary bone.
13. The coffin bone.
14. Vertebræ of the back.
15. The six vertebræ of the loins—there are eighteen bones in the tail.
16. The os innominatum, or bason bone.
17. The femur, or thigh bone.
18. The patellæ.
19. The tibiæ, or greater bone of the leg.
20. The fibulæ, or small bone of the leg.
21. The bones in the hock.
22. The metatarsal bone.
23. The great pastern and the lesser pasterns.
24. The coffin bone.

FAMILIAR TERMS.

- a. The crest. When horses are out of condition, this part wastes, and they are said to be crest-fallen.
- b. Withers.
- c. Throat.
- d. Shoulder points.
- e. Arm.
- f. Knee.
- g. Fetlock joint.
- h. The pastern joint.
- i. Foot.
- ii. The coronet.
- k. Body.
- l. Quarters—over the hips is called the eroup.
- m. The dock.
- n. Sheath.
- o. Hock. x. Where curbs come.
- p. Shank bone.
- q. Fetlock joint.
- r. Pastern.
- s. Foot.
- t. Thigh.

THE FOOT.

1. The toes of the foot.
2. The horn of the foot.
3. The sole.
4. The frog.
5. The heels.

THE PROPORTIONS OF A HORSE.

AA. The line which divides the body from the legs, giving the proportion of both.
 B C. The lines which divide the body from the fore and hind quarters, giving their respective proportions.

* * * Though horses vary very much in their proportions the following measurements, which were taken by Mr. G. H. Laporte, from a horse that was considered proportionable, may serve as a guide: the measurement given is superficial, supposing the animal flat, which gives the principal points.

	FT.	IN.		FT.	IN.
The length of a head generally	1	10	Across the arm	0	6
Across the eyes	0	9½	Across the knee	0	4½
Across the nose	0	7	Across the shank bone under		
From the eye to the cheek bone	0	8	the knee	0	3¼
The neck across the gullet . .	1	4	Across the fetlock joint . . .	0	4
The middle of the neck . . .	1	7	Across the pastern	0	3
The junction of the neck to the			Across the coronary bone . . .	0	4½
body	2	0	The highest part of the hoof .	0	4½
From the withers to the ground,			The length of the hoof (<i>i. e.</i>)		
or base line	5	2	from toe to heel	0	5¼
From the rump, or highest part			From the rump to the tail . .	1	1
of the loins, to the ground . .	5	1	From the hip to the end of the		
From the elbow to the stifle . .	2	4	quarters	1	9
From the elbow to the knee . .	1	5	Across the hock	0	6½
From the knee to the ground . .	1	7	Across the shank, below the hock	0	3¾
From the withers to the chest,			Across the fetlock	0	4½
being the depth of that part					
of the body	2	2			

CONSUMPTION. Gibson asserts, subject to consumptions, being washy, that fiery hot horses are the most and of a hectic disposition. They for the

most part lose their flesh, and look faint and jaded; a hectic fever often attends, so that they feel all over hot, though not to such a degree as in inflammatory and other fevers: but these symptoms generally wear off with two or three days' rest, and their appetite to food will also return, but they are apt to relapse as soon as they are put upon fresh exercise; and though they are never so much indulged with rest and food, they seldom carry much flesh.

When a consumption proceeds from any defect in the lungs or principal viscera, the eyes look dull and a little moist, the ears and feet are for the most part hot. There is commonly a sharp cough by fits, and frequently with a groaning, and the horse sneezes very much, has an uneasiness and quick motion in the flanks, often runs at the nose, and some consumptive horses throw out a yellowish curdled matter. They have but little appetite to food, especially to hay, but will eat their corn, and are for the most part hot after it. Sometimes these symptoms abate, and give hopes of recovery; but the least over-exercise, or error in feeding, brings them to their former state. Some look sleek and smooth, though their flesh be wasting; others have rough and staring coats, and appear also to be surfeited: but these different appearances are usually owing to the different causes from whence the distemper originates.

When a horse that has any of the above-mentioned symptoms retains a tolerable appetite to food, holds out a long while without any great abatement of his strength, or loss of flesh, it is always a good sign: on the contrary, when he continues losing his flesh and vigour, it is a sign of decay, even though he retains a tolerable appetite; and any such horse will seldom recover. When a yellowish or curdled discharge runs from the nose, the animal generally dies; but if the matter be white and well digested, and at times abates, or changes to a clear water, it is a promising sign, especially if the horse be young: but, even where the best symptoms appear, consumptions of all kinds are dangerous and uncertain, and every accident or error exposes a consumptive horse to relapses; because his complaint is often owing to natural weakness.

As to the cure of consumptions, one of the principal things is bleeding, which should be small in quantity, but often repeated, especially in the beginning, be-

fore the horse loses too much of his flesh. This sometimes abates the hectic fever which usually attends consumption, and is a relief to the lungs. A pint at once, or a pint and a half from some horses, is sufficient; and this may be repeated as often as they appear to be more than ordinarily oppressed in breathing. All those things that are proper in colds are profitable here also. Gibson recommends the following balls, which, he says, will do service, if the horse be young.

Take of Conserve of red roses, 1 oz.

Lucatellus's balsam, half an oz.

Spermaceti in powder, 2 drs.

Sal prunella, 2 drs.

Balsam of sulphur anisated, sufficient to make it into a ball; to be rolled in liquorice powder or wheat flour.

These balls may be given one every morning for a week; and if they be found to do service, may be continued during pleasure, till the horse recovers his usual vigour, and begins to gather strength.—A quart of the decoction of bran or of linseed may also be administered after each ball, made warm, dissolving in it an ounce of gum arabic, or gum tragacanth; but if the horse scours, or runs at his nose, so as to induce weakness, the following infusion may be used:

Take of Ground-ivy, a handful.

Horehound, a handful.

Red rose leaves, half a handful.

Linseed, half an oz.

Juice of liquorice, half an oz.

Gum tragacanth, an oz.

Infuse these in a quart of boiling water, letting the infusion stand covered till cold.

To be made milk warm, and given every morning after the ball, with the usual precautions; that is, fasting two hours before and two hours after, allowing him not above a quarter of scalded bran; for, when scalded bran is often given, and in great quantities, he says, it hurts the horse by relaxing too much, and is greatly injurious in all habitual weaknesses. His oats should be the hardest and sweetest that can be got, and his feeds also small, that he may not be cloyed. His hay should also be the finest, and the dust well shaken out of it, and given in small portions, that he may digest it easily. But nothing contributes more to the cure of a consumption than air and exercise, though any excess in the latter is dangerous; and therefore a weak consumptive horse should only be led, or ridden by a person of a light weight; and, if short-breathed, should

only be walked. He should be continued in the air as much as possible, upon some dry common, or other place where the air is good, which is the most likely way to bring him to his stomach, and consequently to his strength; and, if he mends by this management, there may be some hopes of his recovery, provided he be young: but if he be full-aged or old, or if he continues still weak and faint, runs a viscid gleet from his nose, has a fullness of the glands under his jaws, coughs much and wastes in his flesh, and grows weak, with a stinking breath, it will not be worth while to bestow any labour or expense to save him.

Some young horses continue in this consumptive way for seven or eight months, with a great deal of care and good nursing, and, at some intervals, give the owners hopes of a recovery, but at last die emaciated. Others go off in a much shorter time, and not so much debilitated; and some recover that have had a running at the nose for two or three years together; but then this running has abated very much at times, the matter was always white, and, when that ceased at any time, there was generally a flow of clear or whitish water. Such horses will retain their appetite, and not lose their flesh, but go through their business tolerably well, with good usage; though, if they are put to it a little more than ordinary, they will be the worse for it: and persons who have had much practice this way may observe, that these horses seldom recover perfectly till they are about seven or eight years old; then their complaints go off, and some of them grow hardy and useful.

AN ATROPHY is another kind of consumption to which horses are sometimes subject; where a horse has little or no cough, no running at the nose, nor scarce any symptoms of a hectic fever, eats his meat tolerably well, and yet continually wastes in his flesh, and grows at last very hide-bound. This is a dangerous malady, and, for the most part, proceeds from a surfeit or hard usage, and sometimes ends in the farcy or glanders. Some gentlemen have been at great pains and expense in hopes of curing favourite horses that have been thus declining, though without effect; for, in many such cases, the glands of the mesentery, and other lymphatic glands, are very much enlarged; and as, when these are grown hard and schirrous, they hinder the chyle and lymph from mixing with the blood, the horse loses his proper nourishment, and

therefore nothing can produce a cure in this case but what is of sufficient efficacy to remove the obstructions of the glands; and this must be attempted speedily, or not at all.

Therefore, before a horse is too far wasted, give him two drachms of calomel in any of the common horse-balls, in the morning before meat or water, letting him fast two or three hours after it. His food must be scalded bran and the sweetest hay, while he is under this course; he must have no cold water, nor be exposed to wet. The day after this dose of calomel, let him have a mild purging ball; for a horse in this state will not well bear those that are strong.

CONVULSIONS, those involuntary and alternate contractions of the fibres or muscles of an animal which arise through the medium of the nerves. Gibson, referring all convulsive affections to the brain, includes, in his chapter on that subject, tetanus, worms, ulcerations of the viscera, costiveness, &c.; an arrangement by no means according with modern theories.

When convulsions attack only particular parts, they are often attended with some kind of paralysis at the same time, by which means the affected parts are alternately convulsed and relaxed. A permanent convulsion, or unnatural contraction of particular muscles, is called a spasm, or cramp. These partial convulsions may attack almost any part of the body of an animal, and are not unfrequently symptomatic in fevers, worms, &c. The involuntary startings of the tendons in acute diseases are all of them convulsive disorders. Convulsions, even when most generally extended, differ from epilepsy in not being attended with any abolition of sense, and in not being followed by the same torpid state.

Convulsions, not only of particular parts, but also over the whole body, often take place from causes not very evident.— Sometimes, in young animals, they seem to depend merely on the irritability of the nervous system, which is strongly affected by slight causes. Convulsions, however, often take their rise from wounds, irritations of the stomach and intestines by worms, poisons, violent cathartics, &c.

COOLERS are such medicines as, by their attenuating property, tend to divest the blood of its viscosity, and to counteract threatened inflammation. They are always useful in plethoric appearances: when a horse is evidently overloaded, and

above himself in flesh, when the legs are full, round, and all the vessels are palpably distended, cooling medicines, and gentle exercise, are the direct means of obtaining relief. Bleeding should take the lead, followed by a course of diuretics, mild or strong, according to the size and strength of the subject. Nitre, incorporated with half its weight of gum arabic in powder, and dissolved in the water, is an excellent article of this description.

COPPER CAP, THE. Since the application of percussion powder to the discharge of the fowling-piece, various modes have been tried; but the copper cap is preferable to every other; and the nipples, or touch-holes, upon which the caps are placed, should be screwed into the barrel on the upper part of the breech, in a sort of sloping direction.

CORNS, as they are called, would be much more properly denominated bruises, and are of infinite trouble to those who implicitly submit to the Quixotic schemes and manual dexterity of the smith; who, with a *secundum artem* expedition, instantly renders the remedy worse than the disease. As his principal province is the art of cutting, he has no sooner the drawing-knife in his hand, than he is at "the bottom:" his great object is the destruction of parts; and he piques himself upon doing more mischief in two minutes, than nature can restore in three months. Impressed with no idea but instrumental extirpation, he proceeds to excavate the sole of the foot, till, having reached the membrane, a protrusion ensues, and leaves him a happy opening for the bar-shoe, hot-stopping, a daily dressing, and the collateral considerations which constitute a sum total by no means necessary.

Corns mostly originate in the shoe having swerved a little from its proper seat upon the wall or crust of the hoof, and becoming, as it were, indented upon the outer sole, occasions a bruise, appearing to have ramifications of extravasated fluid in very fine and oblique directions: the shoe being permitted to press upon this part, (become irritable by the injury it has sustained) produces pain and impediment to action. Upon the discovery that such has taken place, the remedy is as simple as the cause by which it was occasioned. The shoe being carefully removed, take from the surface of what is miscalled a corn, just enough to leave the part free from pressure by the shoe; moisten once externally with a few drops of oil of vitriol, or simple aqua fortis; and

the operative smith, farrier, or veterinary surgeon, will not find a plea for the devastation he is generally so ready to promote.

CORDIALS. Medicines which act by stimulating the stomach, and quickening the circulation of the blood. Of this description are the whole class of aromatic substances, volatile and ardent spirits, &c. which, given to excess, produce secondary debility, and exhaust the animal powers, after having caused an inordinate exertion of them.

Mr. Clark very properly reprobates their indiscriminate use in veterinary practice. He says, when horses fall sick, it matters not with some what may be their complaint: it is too common to give them such things as many people esteem cordial or comfortable things to themselves; these are ardent spirits, a little diluted, or wine, ale, &c. either alone, or heated and mixed with different kinds of spices. Wine or ale may indeed be given, in very small quantity, to a horse that is in health, when tired or fatigued on a journey, or in consequence of very hard labour; but they are by no means proper to be given in any quantity to a horse that is sick, more especially ardent spirits, as neither the stomach nor the head of a horse, even in health, can bear much of these liquors at any time. On the contrary, he soon turns giddy, and loses the use of his hind quarters, during a fit of intoxication; and, when given to a horse that is sick, they may be expected to add fuel to the disease, unless his malady be such as really to demand the internal exhibition of stimulants for its cure; but these distinctions are seldom attended to.

CORIANDEE, the name of a horse who acquired much celebrity by his performances upon the turf for six years in succession. He was bred by Mr. Dawson, and was got by Pot8o's out of Lavender, who was got by Herod; her dam by Snap, out of Sweet William's dam by Cade.—He was foaled in 1786. In 1789, when three years old, he beat Jericho, over the Ditch-in, for 200 guineas, and Sir W. Aston's Marcia, two year old course, 100 guineas. First spring meeting, 1790, he beat Buzzard, 7st. each, 100 guineas.—Second spring meeting he beat him again for the same sum. He beat Egbert and Isabel, a sweepstakes of 100 guineas each; and Shovel, Glaucus, Alexander, and Sir Thomas, a sweepstakes of 50 guineas each; Baronet, Nimble, Egbert, and Sir Pepper, paying forfeit. He walked over for the

King's hundred at Ipswich; and beat Lord Barrymore's Pellegrine the two middle miles of the Beacon for 200 guineas.

In 1791 he won a subscription purse, beating Spear, Isabel, Ruffian, Black Deuce, and Mouse. He also won the plate at Swaffham, beating Isabel and the Sister to Imperator; and the next day won the other plate, beating Clayhall.—At Newmarket, in October, he beat Highlander, Serpent, Halkin, and Espersykes; after which, over the Ditch-in, he beat Escape, Skylark, and Pipator.

When rising six years old, he received forfeit from Sir C. Turner's Weathercock, and won the King's plate at Guildford, beating Enchanter and Braggadocio; also the King's plate at Nottingham, beating Young Cicero.

In 1793 he won the aged plate at Newmarket, beating Dragon, Halbert, and Halkin. He won the King's plate also, beating the Duke of Bedford's Skyscraper. Second spring meeting, he won the Jockey Club plate, beating Skyscraper, Bustler, Cardock, and Pipator; and on the same day won the weight for aged plate, beating Huby, Volanté, and Eager. In the same meeting he beat Buzzard, the Beacon Course, for 200 guineas.

In 1794, when aged, he won the whip and 200 guineas, beating Creeper, 10st. each, over the Beacon. He won £50 at Chelmsford, beating Sweeper and Portland; likewise £50 at Northampton, beating Triumvirate, and a son of Faggerrill. At Newmarket, in October, he won the aged plate, beating Quetlavaca, Exciseman, and Halkin; and in the same week he beat Lord Egremont's Gohanna (giving him 24lb.) and Lord Strathmore's Hermes. In the second October meeting, being the last time of his running, he won a subscription purse, (paying 50 guineas entrance,) beating Lord Grosvenor's Exciseman, and Lord Sackville's Silver.—This extraordinary horse was one of the very few who stood so many years' training, and so much severe running, without an accident. He covered afterwards in the north, at seven guineas, and has produced some good runners.

CORKINGS, or CALKENS. The indefatigable *Mr. Lafosse* has given his readers a caution against the use of *cramps*, or what we in England term *calkens*, and vulgarly *corkings*; that is to say, turning up the shoe at the point of the heels to prevent slipping on the stones in frosty weather. He says, that "the frog being hereby removed to a great distance from

the ground, the tendon will be inevitably ruptured." But this is true only in part; as, in all minor strains of the tendons which do not amount to absolute disease, these give or relax a little, so as to ease off the concussion that would rupture them. In summer time, I am free to allow, this effect would frequently happen when the ground is dry and hard, and the horse put on his best pace; but then, no one thinks of *calkens* at such a season, whilst, in the winter season, when the ground is usually wet and soft, this cannot happen in a flat shoe, because the calken of the shoe-heels then buries itself in the ground, so that the frog is still admitted to touch the ground and to rest thereon. I therefore conclude it is necessary and proper that all sportsmen who hunt over hilly or slippery countries should have their horse-shoe heels turned up in winter time, especially the hinder ones, for the security of their persons: they may do so, if they choose, without danger of rupturing the tendons, and some would come home less lame with calkens than without them.

CORNER-TEETH, are the four teeth at the extremities of each row in both the upper and the lower jaw, situate between the middle teeth and the tushes: the corner teeth in the lower jaw, are those which the horse sheds when four years old off, and rising five; these not spontaneously exfoliating in time to accommodate the pecuniary propensity of the dealer, he possesses the means and the practice of selling a four year old colt for a five year old horse; and this is so constant, that there is with that class nothing dishonest considered in the custom.

CORONET is the part surrounding the foot of the horse just above the junction of hair and hoof: the bone from which the name is derived, bears great affinity in form to a ducal coronet, and is situate between the lower part of the fetlock-bone and the coffin, into which it is inserted, jointly supported by the nut-bone behind. Ligamentary twists, or distortions, sustained at the superior junction of the coronary bone, frequently occasion a prominence upon the coronet, which becoming first callous, and then ossified, is termed a ringbone.

COSTIVENESS, a morbid retention and hardening of the fæces, common to most animals. In horses it sometimes arises from violent and hard exercise, especially in hot weather. Sometimes costiveness proceeds from a contrary

COURTING



cause, viz. from standing long at hard meat, without grass or other cleansing diet, and having but little air and exercise, or having their exercise only in spurts and not continued. When costiveness proceeds from either of these causes, it is easily remedied, if taken in time. But there is another kind of costiveness in horses, which is more hard to be removed, viz. that which seems to be natural, or grown into a habit.

In the first case, the cure is obvious, only by giving him an open diet for some time; and, if any thing more is wanting, lenitive and mild purges are the most likely to succeed. In the second, when costiveness proceeds only from want of air and exercise, and a cooling lax diet, it is no less easily remedied with proper lenitives; as a single drachm of aloes, frequently repeated, according to its effects. Gibson recommends Glauber's salts with lenitive electuary, viz. four ounces of each dissolved in warm ale or water, and repeated every other day, with scalded bran every day, till the horse's body is thoroughly opened, giving him, at the same time, air and exercise. Oily clysters may also do service in this case; and, after these things are complied with, two or three purges may not be improper.

COVEY OF PARTRIDGES, consists of the cock, hen, and their produce.

COUGH, CHRONIC, observes Mr. Blaine, considered as an action generally, is a violent effort of the diaphragm, intercostal, and abdominal muscles, producing a forcible expiration of the air from the chest, with such violence as is intended to remove any extraneous body that may intercept the free passage of the air. Whenever it accompanies a general affection of the constitution, it is regarded as simply *symptomatic*, and the original disease is attended to for its removal. Thus catarrh and pneumonia are frequently accompanied by a cough, but we attend principally to the inflammatory state of the general circulation, as the best means of subduing it. A chronic cough is no less symptomatic of some affection of the air passages, yet as it is the only prevalent symptom, the mitigation of which removes most of the ill effects of the complaint, so in this instance, though we do not neglect the cause, we attend to the cough also. Chronic cough is a very usual attendant on thick wind, and on broken wind: it likewise accompanies glands and pulmonary consumption.

Worms also within the stomach and bowels are productive of a fixed cough. But besides these, there exists at times, without any attendant difficulty of breathing, the horse eating well and thriving, a permanent cough, usually more considerable in the morning and evening, after meals, and on any violent exertion, particularly on going out to exercise. A cough of this description is very common, and it will remain in this state, without otherwise affecting the horse for years, sometimes even his whole life. In other instances it does not end in so harmless a manner, but upon any occasional cold taken, becomes aggravated; at each cold becoming worse and worse, till at length the wind is affected.

I have frequently seen chronic cough benefitted by a course of mercurial physic; but the cough in such cases was probably dependent on worms: and, whenever a continued cough exists, with irregular appetite and unthrifty coat, stools fetid and slimy, at one time loose, and another hard and dry, it is more than probable that worms occasion the affection. In all chronic coughs the best effects sometimes follow from feeding with carrots. Turnips, parsnips, beet, and potatoes, may be beneficially used where carrots cannot be got; and a mash with bran and linseed, or malt, may be occasionally given. See CATARRH.

COURSING. This diversion, which has been practised from the earliest periods, was formerly more diversified than at present; that is, the greyhound was used to pursue the stag, the wolf, and the fox, as well as the hare; or, at least, so we are informed by those who have handed down to us their excogitations through the medium of the press.

However, it is not necessary to proceed beyond the length of the preceding few lines in an useless attempt to fathom the boundless abyss of antiquity, since we are very well aware that coursing has been, for many years, and still continues to be, confined to the pursuit of the hare. We know, further, that it has been much cherished of late years; that it has assumed a form and consistency; that it is patronised by the great and good, and consequently demands particular notice in this place.

In an interesting little volume, entitled the "Coursing Companion," the author says "coursing is followed by different individuals, or by different parties, and for different purposes: some for the pur-

pose of what hares they can kill for the table, and totally indifferent as to which greyhound has the most essential qualities towards obtaining that object, so that they do but obtain it; others for pastime, recreation, or getting out into the open air for the benefit of their health; others from a laudable emulation to vie with their neighbours and friends, as to which can produce the best greyhounds; others for gambling purposes; others for all these united, or for different portions of them.

Further—"Experience shews that discontent is a very prevailing matter at coursing meetings, and may be attributed to a variety of causes, as well as from the difference in the dispositions of men. Select five persons from out of a field of sportsmen, and ask them to describe the particulars of some one course to which they have all been eye witnesses; and it is great odds but that they will give you five different histories of it. This may be ascribed to different causes, amongst which, firstly, it must be remembered, they do not all view the course from the same situation; some at a greater distance than others; some to the right and some to the left; some before the dogs, some behind them; others opposite, others in an oblique direction; and the course, changing its direction, changes the direction in which different parties view it, continuing in the kaleidoscope manner throughout the course; and many circumstances taking place in it which appear different as viewed from different situations; it is, therefore, not surprising that different opinions should be formed of it. But when, secondly, this variety is increased, or rather multiplied by cross multiplication, with the variety of opinions held upon the principles or rules for deciding a course, for want of a regular, known, and acknowledged set of rules, it would be matter of surprise if *doctors* did not differ upon it. Thirdly, there are those who would wish to give an impartial opinion, but are over-ruled by the pardonable, because naturally-felt, prejudice or partiality, towards their own or friend's dog; in the excitement of the course, and the interest they feel in it, they anxiously watch every advantage *he* gains, which is impressed on their minds in a stronger manner than the advantage his opponent gains. And, fourthly, there are those, 'that go to win through thick and thin.' If they cannot win fairly, they will win, or try to win, by clamour—

they *cannot see* what points the opposing dog gains; but what their own gains *they can see even double*; or they will swear that their dog gained those very points which the opposing dog actually had gained.

To provide a complete remedy for the two latter would be as difficult as finding out the philosopher's stone; but the inconvenience arising from them may be much lessened, by remedying, as far as remedy is possible, the two former causes of the difference of opinion on a course. The first, by a competent tryer, sufficiently well mounted to keep a proper situation for seeing the whole course, and in whom the field have confidence, so that they will make allowance for the difference between his situation for viewing the course and their own. The other, by a code of laws, more simplified and more clearly understood, more generally known and acknowledged than what has hitherto existed." Unfortunately, however, for the first of these propositions, there are situations where a mounted tryer, or judge, though he rode the best horse in the world, would not be able to keep so well in with the dogs, as to be able to form a clear and decisive opinion; and this too, perhaps, where the very best dogs in England strive against each other:—As a pre-eminent instance, we may select Altcar, where the hares are very numerous, very stout, and the dogs at least equal to any in the kingdom. The Altcar Coursing Society, or Meeting, was established under the superintendence and direction of Lord Molyneux (eldest son of Lord Sefton) and is continued with much spirit; but the nature of the ground is such, that horsemen cannot ride to the dogs. The sport takes place upon an extensive flat, which, I should imagine, at some remote period, was covered by water and formed a mighty river. Time, however, (assisted by improved cultivation) has so altered the face of things, that the mighty river has dwindled into a small stream, of some three or four yards broad, which at present is known by the name of the river Alt. From what has been stated, it will easily be perceived that the ground lies low; and in order to render it as far susceptible of cultivation as possible, it is intersected in every direction with large ditches or drains, the banks of which are so very spongy and soft, that it is very difficult, and, for the most part, impossible, for a horseman to cross them:—if a horse sinks in these places, it is, in general, no easy

matter to get him out—the neighbouring peasantry, cart ropes, &c. are called into requisition for the purpose; and yet, notwithstanding the utmost exertions of the united body, the animal becomes exhausted, and sometimes almost dead, before he is extricated from his perilous situation. In fact, the Altcar Coursing Meeting takes place upon a well-drained bog, which affords the best possible view to the company, but where horsemen cannot follow, or keep in with, the dogs.

“It frequently happens, that the principle on which courses are decided varies in different countries and over different grounds. Much of the dissatisfaction arising from this cause would be removed by having *one uniform code of laws*, established and recognised by all public meetings for the guidance of umpires; an error could then only arise from the view taken of the course. The Ashdown Park Club have promulgated certain Laws of the Leash, expressive of the principles on which they wish to have the course decided; and if those, or any others that were thought by the leading clubs to be more perfect, were adopted generally, much advantage would accrue. But we may safely appeal to the facts upon the question; and the truth is, that more harmony and pleasure cannot exist in any society than in that of a coursing club. The mortification and chagrin which the loser may feel at the moment, give way to his respect for his brother coursers, and are more than counterbalanced by the beautiful style of running and performances of another dog from his own kennel. It is likewise true, that in every large society may be found spoiled children of a larger growth.”

Speed and the power of maintaining it should always form the leading characteristic in a greyhound; while *turning* is a most important consideration in fixing rules by which courses should be decided; “but one dog being a better turner than his fellow, has no need to have the advantage of a casting point in his favour, as he, in fact, *pays himself* by subsequently gaining a greater number of points, from being possessed of that faculty; nevertheless, turning requires much consideration, as the stoutness of a greyhound is ascertained by his enduring a number of turns in succession, one dog being much sooner tired with them than another. It may be said that this is owing to one being of a better breed, or in better condition than the other.

That breed or condition will shew itself in a greyhound's racing, as well as turning, must be admitted, although turning will bring it to the test the soonest. Suppose a case:—two greyhounds of the same breed and the same litter, when they have been fairly entered one season, and found equally good in their trials, then, when they are commenced training for the next season, let one of them be exercised wholly by running him by the side, or with, horses, without running him a single course till his trial day: the other run with horses for a part of his exercise, and the other part with coursing, so that the muscles and parts brought into action by turning, are exercised and strengthened. These two dogs, in other respects fed and trained alike for a few weeks, may be brought to trial; and it will soon become apparent that turning distresses the one not exercised to it much more than it does the other; and, therefore, that turning has an effect upon dogs which requires due allowance. Experience also shews it in other cases.—Two dogs of the same breed, equally good for speed and turning, but one of them in worse condition than the other; that defect in condition, it will be admitted, will begin to shew itself in some stage of the course or other:—a close observer will first perceive that defect by the dog shewing less quickness, activity or vigour, than the other in recovering from his legs upon a turn, and thereby shewing that *turning* has an extra tendency towards lessening his powers.

Also, take two dogs of the same breed and condition, but one slower than the other, supposing them both fair runners: the slower dog will give more turns than the *latter*, while the speedier dog will exceed his fellow in this respect at the *first* part of the course, and thus reduce his power to a level (or even below) the slower dog. It does not, however, always follow that because a dog gives the most turns at first, he should be defective at the last part in comparison with his fellow, from the distress occasioned by those extra turns, where his breed and condition are good; as the powers of a dog will weaken faster in a course, or become more visible, by a defect in breed or condition, than by the extra exertion of turning where there is no such defect; and, therefore, if the more speedy dog has also the advantage of breed and condition on his side, he will maintain his superiority, to a certain degree, independent of his

undergoing the extra exertion of giving the most turns.

Where it is evident, from a number of turns, that they weaken and distress a greyhound, it must be allowed that *one* turn only, though the weakness caused by it is not visible to the eye, has its due proportion towards lessening his powers for the subsequent part of the course; and though that portion may be trivial, and what takes place in the course afterwards may be trivial also, yet there is no drawing any other line, than allowing for it in the regular ratio, and that principle ought to be followed in all other single or trivial circumstances that occur, otherwise the principle would become a dead letter.

Should there occur nothing in a course upon which to decide but a superiority of speed, it becomes highly important that the judge or tryer should be in a proper situation for observing it. To many persons in the field it may appear that the last dog gains upon the first, when in reality he does not gain; and this impression arises from the situation whence it is viewed: if the dogs are running in a direction straight from you, or obliquely, it will appear so, because the actual distance between the dogs appears to diminish the further they get from you, when, in fact, the distance or space does not diminish in the least; and it will also appear that the first dog does not gain when he actually is gaining. If you are situated laterally; that is, the dogs presenting a complete side view; or what the author of the "Coursers' Companion" calls "directly opposite," at a moderate distance, you will easily see which of the dogs gains upon the other; but to those who continue stationary, this exact lateral direction can only be momentary, and the greater the distance, the less perceptible is any trifling advantage.

From twenty to forty yards to the right or left of the dogs is the best situation for the tryer or judge; which distance will not only enable him to observe the superiority which one dog may maintain over the other, but also whether the course is a straight stretch, or the hare running in a bend, which cannot be perceived by persons who are at a great distance to the right or left.

It sometimes happens that one dog is behind the other in the first run up to the hare, from their not starting equally together, and without any fault of the last dog. By some this is held that it ought to be looked upon as the fate of war, and

that the other ought to be allowed what he gained by it. The fortuitous circumstances which occur in coursing are numerous and frequent; and it may be contended that the most simple way would be, to allow every dog the advantage and points he gains, whether gained by merit or by chance.

Merit in a greyhound is by comparison with the one with which he is contending. By superior speed he gains go-bys, cotes, turns, &c. and by stoutness he is enabled to continue them: by being a good turner, fencer, or killer, he gains more points than one inferior in those capacities. Of these points, a go-by, a cote, a kill of merit, a tripping, a jerking, a turn, and a wrench, may be called fundamental. Superior speed, a fair runner against an unfair runner; a good fencer against an inferior fencer; giving a succession of cotes or turns in the middle of a course, may fairly admit of being allowed as extra points where the fundamental points are equal. An unequal start, an inside turn, or hare going in a bend; not seeing the hare when slipped, or dissighted from other accidental causes; a fresh hare getting up; a third dog slipped; a dog rode over, or running against horses' legs or other things, whereby he is disabled; are casualties that should be decided by the judge according to the circumstances of the case. Where the judge is unable to form a decisive opinion, the matter ought to be settled by a toss.

The hares at Amesbury, as well as many other parts of Salisbury Plain, have, and deserve to have, the character of extraordinary speed and stoutness; and though it may appear incredible to many, from the apparent superiority of the greyhound in stride and muscle, yet it is an incontrovertible fact, that, with a fair start, many a hare has run a brace of greyhounds out of sight without being once turned. Sir Walter Scott, speaking of the hare of Balchristy, says—"She usually gave the amusement of three or four turns, as soon as she was put up (a sure sign of a strong hare, when practised by any beyond the age of a leveret) then stretched out and so forth." This disposition to play with the dogs, in a strong hare, is sometimes practised to a much greater extent than three or four turns:—they will "kick up their heels in the face of the dogs after ten or a dozen turns, immediately tip them *leg-bail*, and run them out of sight." The fact would appear to be, that these strong

hares cannot, at starting, exert their best pace; but, after having been on their legs a few seconds, they gain their utmost speed and use it accordingly.

With a hare of this description, if the principle were to be admitted of allowing more for the turn given towards the covert than from it (which appears recognised in the new Laws of the Leash at Ashdown Park) where is the chance of a fair running dog contending with success against a waiting one? They may, in other respects, be equal, when loosed from the slips, but by the waiting dog saving himself, coming in for turns or wrenches, when his fellow, in a manner, brings the hare to him; his fellow exerting himself to the utmost of his power, undergoing severe twists of the body, by striking at the hare, and she doubling short back, as such a hare will do, the course she gives them afterwards, affords the waiting dog an opportunity of shewing the superiority or strength which has been left in him by saving himself—it may enable him to reach her, when he otherwise would not have done, and gain one or more turns; and, if not, he will probably manifest such superior speed in the race, as will, in a manner, eclipse any extra turn or two which the honest running dog may have gained at the commencement, more especially if it be not a fixed principle to take every point or turn throughout the course into account.

That *the best dog ought to win* is a maxim which should always be kept steadily in view; and that dog which performs the most towards killing the hare, it would seem reasonable, ought to constitute the best dog. The dog which gains the greatest number of points would appear to be the soundest principle upon which to act in the decision of the tryer or judge. It nevertheless may sometimes happen, that the best dog gains the fewest points, owing to accidental or fortuitous occurrences; yet this circumstance should not be allowed to disturb the acknowledged principle.

We shall introduce, in this place, the Rules of the Ashdown Park Coursing Meeting, which, however, would appear little more than riders to the old code promulgated by the Duke of Norfolk in the reign of Elizabeth, which appears under LAWS OF THE LEASH.

General Rules for the guidance of umpires in deciding courses, and other Laws of the Leash, sanctioned by the members of the Ashdown Park Coursing Meeting, present at Lambourn on the 7th Feb-

ruary, 1828, and inserted in the Cours-er's Manual, or Stud-Book.

1. A brace of greyhounds only to be slipped after a hare.

N.B. The slipper should be a horse's length in advance of the beater, and when a hare is started he should quicken his pace, that the dogs may both take sight, and pull in the slips before he looses them. It is necessary that good law should be given, as it materially assists the umpires in case of a weak hare.

2. If a second hare be started during a course, and the dogs divide, the course to be given to the dog that follows the slipped hare.

3. If there be only one turn and a kill in the course, the dog that gives the turn shall win, if it be a fair start.

4. If there be no turn or kill in the course, the dog that gets first to the covert shall win, for cup or sweepstakes.

5. If there be many turns in a course, a go by shall be equal to two turns of the hare. The lead-up to the hare from the slips, and the first turn, shall be equal to two after turns of the hare. Two re-wrenches of the hare, provided the dog makes them following without losing the lead, shall be equal to one turn. The turn, when the hare is leading to the covert, shall be considered more than the turn when she is running from the covert, provided the number of turns be equal. If a dog falls in the course when he is leading, he shall be allowed a turn more than he gives.

6. If one dog follows the hare home, and the other stands still when the hare be in view, the course shall be given to the dog that runs home, though he had not the advantage in running. If both dogs stand still in a course, it shall be adjudged to the dog that runs longest after the hare.

7. If both dogs be unsighted owing to a hare running through a bush or bushes, furze or plantation, so as to impede the course, the course shall be deemed to end there.

8. If the owner of either dog, or his servant, ride over the dog of his opponent in the course, he shall lose the course.

9. If a third dog get loose and join in the course, the course shall stand good and be decided, and the owner of the third dog shall be fined according to the rules of the club.

10. The umpires shall give their judgment promptly, before they converse with others in the field; if they be divided in

opinion, they should ride apart from the rest of the company until they have consulted a third person, who should be chosen in all courses, for cup and sweepstakes.

11. If the dogs be slipped at a hare, and they are unsighted, and before they are taken up another hare start, so that the dogs are fairly laid in, it shall be deemed a course as though the dogs went from slips.

In justice to the author of the "Coursers' Companion," whose little book is the production of a man of sense, we must quote the code which he proposes for general adoption:—

Laws of the Leash; or, a Code of Coursing Laws, as proposed to be amended from those framed by his Grace the Duke of Norfolk, in the reign of Queen Elizabeth.

1. A hare ought not to be coursed with more than a brace of greyhounds.

2. She ought to have four or five score yards law before the dogs are loosed from the slips, if the nature of the ground will admit of it without danger of losing her.

3. The slipper ought to have only one person to obey when to slip them.

4. The tryer ought to be in a situation to see if both dogs go together out of the slips; and he would be the fittest person to judge of the distance the hare is off, and to give the word *slip*.

5. The slipper ought to run forward with the dogs when a hare gets up, so that they will bear steadily against the slips, otherwise one or both may be turning round at the time the word *slip* is given.

6. When a hare is found sitting, she ought to be distinctly soho'd, as the dogs may be alive to her getting up; and for the same purpose she ought to be halloo'd when started; the latter ought to be only by one or very few persons.

7. A cote to be reckoned two points; and a cote is when two dogs start even together, the hare going in a straight forward direction, and one dog draws endways by the other, and gives the hare a turn.

8. A turn to be reckoned one point; but if the hare turneth not, as it were, round, she only wrencheth; and two wrenches are equal to one turn. A wrench is when she strikes off to the right or to the left, at about a right-angle.

9. A go-by to be reckoned two points; but one dog being behind the other and then getting first, by the hare going in a

bend, or any way unless in a fair straight-forward stretch, or by superior speed, is no go-by, but an inside turn. If a dog gives half a go-by, to be allowed one point for it, unless that half of a go-by forms part of a cote, in which case it should be reckoned in the cote.

10. Killing the hare, or catching and holding her, to be reckoned two points, if it be a kill of merit; but one dog turning the hare into the other dog's mouth, or other casual circumstance causing it, the kill to reckon only one point or nothing, according to the degree of merit the tryer considers to be shewn in effecting it, or no point if no merit in it.

11. A tripping, or jerking, the hare to be reckoned one point.

12. If a dog takes a fall in a course when he is leading, he shall be allowed one point more than he gained.

13. If one dog does not see the hare when slipped, by any accidental occurrence not *his* fault, to be deemed no course; but if owing to his own untractableness or infirmity of sight, the dog that follows the hare to win.

14. If there is no turn or other point gained, an equal start, and the hare going in a straight-forward direction, the dog leading first to the covert by superior speed to win. If one dog loses ground at the start, by any occurrence *not* his own fault, and afterwards evidently gains upon the other by superior speed, though he does not pass, or get even with him, yet he ought to be deemed the winner. Either dog leading first to the covert by an unequal start, an inside turn, or other occurrence where there is no superiority of speed shown, the course to be adjudged dead; but if the unequal start was owing to the fault of the dog, losing ground by it, and who does not regain that loss by superior speed, he ought to forfeit the course.

15. If a dog loses ground in the start by any untoward circumstance, *not* his own fault, and yet maintains equal speed with the other, if that other gives the hare a turn, or gain any other point, but the course end immediately by the hare getting covert, sough, squatting in turnips, or otherwise, except killing her, that turn or point not to be allowed for, but the course to be adjudged dead. The same if that turn was gained by the hare going in a bend or otherwise, without any superiority of speed being shewn. If the course continues longer, and other points are gained, that first turn or point to be taken into the account; and if that

unequal start was owing to the dog's untractableness, or otherwise his own fault, the turn or point gained by the other dog to entitle him to win, though no other point was gained.

16. If a dog stands still in a course, otherwise than through distress, or leaves the direction of the course for the purpose of meeting the hare, the points he has gained to be reckoned only up to the time he stood still or left the course, though he may afterwards join in it. If the points he has gained up to that time should happen to equal what the other gained in the whole course, his standing still, or leaving the course, to give the extra point against him.

17. If a dog refuses to fence where the other fences, his points to be reckoned only up to that time, though he may afterwards join in the course. If he does his best endeavour to fence, and is foiled by sticking in the meuse, or the fence being too high to top it, whereby he cannot join in the rest of the course, such course to be deemed to end at that fence. And should the points be equal, a good fencer to have an extra point over a bad one.

18. If a fence intervenes in a course that the tryer cannot get over, and thereby loses sight of the rest of the course, the course to end at that fence.

19. If a dog be rode over, or disabled, so that he can proceed no further in continuing the course, by other accident not the fault of the owners of either dogs, or their servants, the course to be decided up to the time the accident occurred; but if the fault of the owner of the other dog, or his servant, to be given against him.

20. If a fresh hare gets up during a course, and one of the dogs takes after her, the course to be decided up to the time she interfered with it. If a third dog gets loose and interferes with a course, to be decided in like manner, unless the third dog is the property of the owner of one of those engaged in the course, in which case the course should be given against him.

21. If the points be equal between two dogs, but one evidently shows most speed, that speed to entitle him to the extra point; but where one dog has a majority of points, and the other most speed, the majority of points to win.

22. The next brace of dogs to be taken to the slipper immediately on his

loosing the other dogs, that he may have them ready in the slips when the tryer returns from the course; but they ought not to be slipped at a hare until both the other dogs are taken up, for fear of their joining in the fresh course.

23. Some one person should be appointed to receive the tryer's decision, and to communicate any directions to him upon the orders of the field. No other person ought to interfere or say a word to him during the time the business of the field is going on, as it is his place to judge upon the points of the course, as well as the casualties that may have occurred in it. Should the owner of either dog engaged, or their servant or partisan make any remark to him, either directly or indirectly, before he has given his decision, he ought to forfeit the course, though it may be that his dog was entitled to it.

24. A tryer ought to have a quick eye, a clear head, and a retentive memory; and ought to give his judgment promptly and decisively, but not over hastily. No one ought to ask him why he decided on such a dog, nor ought he to answer them if they do ask him, without their first applying to the stewards, and who ought not to suffer him to be annoyed with questions which they, the stewards, think unnecessary.

CRACKS in the heels of horses, during the winter season, are found only in stables where the master seldom or ever condescends to appear. These trifles are too frequently attributed to a defect in the constitution of the horse, when, with more propriety, they might be fixed upon a want of constitutional punctuality in the groom. Horses left with wet legs and heels after chase or journey, particularly in sharp easterly winds, or in frost and snow, produce the evil to a certainty.—So severe a rigidity is occasioned in the texture of the integument, that it becomes partially ruptured, (or broken in various places,) upon being brought into action the following day: this, with the irritation and friction occasioned by the sharp particles of gravel and extraneous matter in the dirty roads, soon produces enlarged lacerations of the most painful description. The prudent part of the world will always consider, as well in this, as in every other case, that prevention is better than cure: servants should be allowed in the stables, linen cloths for rubbers to the heels, that they may never be left in the

least wet, particularly in the winter season, when once getting tender, the stubbed ends of the new and stiff straw frequently occasion or increase such lacerations.

CRAMP is a most extraordinary spasmodic muscular contraction of some particular limb, where the stiffness and rigidity of the part exceeds belief. To those who have never been accustomed to such cases, they are serious and alarming; for the strength of two men is inadequate to the task of rendering the affected limb pliable and active. The cause is sometimes not to be ascertained; but it has frequently arisen from a horse, in a high state of perspiration, having been placed in a current of cold air, or a damp stable, and in a few minutes found not able to move. Standing still two or three days in succession without exercise, after long and constant travelling, is likewise known to produce it. But whatever cause it may have originated in, the direct road to relief is still the same. Instantaneous bleeding, hot fomentation with a decoction of aromatic herbs, immediately followed up by strong friction with an old stable horse-brush, and this by an embrocation of camphorated spirits, half a pint, incorporated with one ounce of oil of origanum, and a part of it patiently rubbed in upon the particular part affected, never fails to relieve in a short time.—Should it, however, not take effect, so soon as expected, dissolve a cordial-ball in a pint of gruel, to which add an ounce of liquid laudanum, and let either or all the operations be repeated in a few hours, should the case (or a relapse) require it.

CREST-FALLEN. A horse is said to be crest-fallen, when the part running from the withers to the ears, and upon which the mane grows, is impoverished, and wasted from the natural prominence of its beautiful curve, to a state of reverse hollowness or indentation. This is generally accompanied by a total emaciation, brought on by very bad support, or neglect under different degrees of disease.—The firmness and corresponding curve of the crest is almost invariably a tolerable criterion of the health and condition of the horse; and a judicious inspector seldom omits this part of the examination.—If the flesh upon the crest is firm, solid, and not flabbily soft, or fluctuating, it is a good sign of constitutional strength; but a horse having a low, bare, indented crest, will always have a poor, weak, and im-

poverished appearance, doing his owner no credit. This defect, however, proceeds more from penurious keep, and temporary starvation, than any cause or defect in nature, and may always be expeditiously remedied by liberal support, and nutritious invigoration.

CRIB-BITING is a habit of continually biting the manger, and gulping the wind. Mr. Yare, inventor of the anti-crib-biter, makes the following judicious observations on the subject in the *Sporting Magazine* of July, 1830.—“Crib-biting is often produced by injudicious cleaning. It is a common practice, in racing and hunting establishments, to dress horses with an ash stick in hand, which is held at them *in terrorem* whilst undergoing that process, and occasionally applied to their bodies with rigour. This practice is not only foolish, but betrays a want of judgment which nothing can extenuate; for the unruly conduct of the animal is mainly attributable to mismanagement and ignorance on the part of the attendants themselves, who very unjustly make the horse pay the penalty of their own awkwardness, as I can easily shew. Grooms and stablemen often disregard the irritation they cause to horses in passing too roughly with comb, brush, or wisp, over the belly, flank, and under the web of the arm, which on those tender parts produces extreme titillation. The animal, unable quietly to endure this oftentimes prolonged excitement, in the agony of his suffering naturally enough resists, and evinces his displeasure of the treatment by reiterated attempts to kick and bite the party inflicting the torture, as well as laying hold of the manger with his teeth, which in many instances is undoubtedly the forerunner of crib-biting. On these occasions the ash stick is brought into unmerciful requisition, thereby spoiling the temper of many of our best and finest horses, who, compelled diurnally to undergo this teasing ordeal, generally become spiteful and illnatured, and, in addition to other vicious propensities, imbibe a mischievous habit of kicking out on the approach of any person towards them. Now, if the groom would only reflect for a moment, he would be immediately convinced that his own improper conduct was the cause of the trouble experienced, and that his irrational proceeding must ultimately ruin the most docile and quiet horse; but the despotic character of man misleads him to imagine, that the brute

animals must implicitly obey and acknowledge his supremacy as a law of Nature, and submit to his will subserviently, even though intimated to them in a somewhat ambiguous manner. I cannot with propriety be contradicted, when I state, that so long as this baneful system of stable-management and discipline be allowed to be pursued with impunity by servants, gentlemen may always make sure of possessing crib-biters and vicious horses.

The precaution which I invariably observe is, never to dress, buckle or unbuckle girth or roller, with the head to the manger, or, if in the open air, within reach of any thing the horse can snap at or lay hold of; uniformly taking care that he be soothed or kindly used when undergoing the operation of cleaning; and, should resistance be opposed when passing even as lightly as possible over the parts above mentioned, I never allow any violence to be enforced. By this usage, the animal is not only less troublesome to the attendant, but the kindness of his disposition is preserved unbroken.

Vicious habits may likewise be ascribed to imperfect training. For instance: a horse is entrusted for that purpose to the care of a person totally unacquainted with the manner of treating him, consequently incapable of judging whether the horse be qualified by nature to fulfil the intentions of the owner. The age and strength of the animal have not been taken into consideration; and his incapacity to undergo the fatigue allotted to him, although proceeding from weakness, has very incorrectly been ascribed to stubbornness and obstinacy. Resistance, as may be expected, has been the natural consequence; harsher usage has followed; the temper of the animal has become soured; and he has really imbibed a vicious character, which at the onset was only imaginary. The result has been open warfare between him and his rider; in which the latter seldom gained an ascendancy; and the former has never been duly trained for the purpose for which he was destined; indeed, he has frequently been rendered quite unserviceable, and become afterwards a drug in the market, though nature had intended him to be useful in many capacities, which, under judicious management, would doubtless have been realized.

The nature of instruction requires that he who teaches should be intelligent, and know how to make himself understood

by his pupils, otherwise little good can be attained. This is more essentially requisite in the rearing and tuition of an irrational animal. When the teacher knows but little himself, or has not the talent of imparting knowledge to his scholars, the design of education is not fulfilled, and coercive measures only aggravate the evil. A parity of reasoning will hold good with horses.

For a long series of years I have been in the habit of making observations on the errors committed in the usual treatment and training of horses; and I am convinced, from experience deduced by long study of the nature of horses, and continual intercourse with them, that mild discipline is the *sine qua non* of stable-management, and it is the interest of every proprietor to see it enforced. Patience and good temper are cardinal requisites in a groom. Horses have very retentive memories, and seldom forget the unruly tricks or habits acquired from improper and hasty handling.

I have just observed that crib-biting is oftentimes caused by improper dressing. It also very generally dates its origin, according to the observations I have personally made, to want of employment, as well as to imitation.

Bad habits usually result from idleness. If we are inveterate smokers or snuff-takers, let us ask ourselves the reason of our indulgence in these propensities? For the moment, probably, we cannot account for them; but, after a little reflection, are free to admit, that imitation and too much leisure are the causes; and custom has tended to root us so firmly to these habits, that to be debarred their indulgence would to many persons be downright misery. As with man, so it is with the horse.

A crib-biter, or wind-sucker, should never be turned out to grass promiscuously with other horses, for he most assuredly will get at the land marks and gates; and, whilst indulging in his propensity, will naturally attract the notice of his companions. Imitation, as I said before, is one of the leading inducements to this destructive habit. I was once an eye-witness to the fact of a horse, when in the field, drawing the attention of four others from amongst the number grazing to his actions. They alternately began, first to nibble at the place moistened by the saliva of their comrade, and, as I prognosticated at the time, became afterwards confirmed crib-biters.

A horse, from want of exercise, will often take to cribbing from sheer idleness, or too much confinement in the stable; and the abominable practice of tying the head to the rack produces, particularly in young high-couraged horses, an impatient restlessness. Some shew their dislike of the restraint by continual kicking with one or the other of the hind legs; others, by nibbling the rack or manger, till they imbibe a professed attachment to the vice, more especially if, in the adjacent stall, they have a companion addicted to crib-biting, and themselves a nice soft deal manger, inviting them to enter upon their noviciate.

Confinement in the stable for too long a period has a similar effect on the horse, as too great an indulgence of bed has on the human frame—it produces general debility and weakness. My advice is, when the horse be not wanted for service, to give him walking exercise in the open air three or four hours a day, allowing him plenty to eat and drink; and if this do not keep him hale and fit for use, why, *get rid of him*, as, to borrow a stable phrase, ‘he must be rotten.’ When the weather will not permit of exercise in the dry, put on a soft bit with players, for two hours in the morning and two hours in the afternoon; by an adherence to which rule digestion is promoted, the loss of exercise compensated, and, by the amusement the horse finds in the bit, he is not only kept out of mischief, but the carriage of the head is greatly facilitated. Exercise improves the appetite and strengthens the power of digestion in a surprising manner; hunger becomes keen; and food is taken with eager relish, which is well known to be one of the best signs of health.

I have occasionally excited the ire of grooms, by requesting them to abandon the practice of using the rack-chain. These gentlemen, when interrogated as to the utility of attaching the head to the rack, usually answer, ‘To prevent the horse lying down and dirtying his quarters!’ But the true reason is, they are fearful of a little extra trouble in case the animal should be wanted at a short notice. When I have inquired if the horse was habituated to lying down in the day-time, or whether he has been ever known so to do, the response given is usually, ‘No; we never actually saw him down during the day, but we have always been accustomed to tie him up.’ Therefore, according to their own shewing, they

give the poor beast his unnecessary restraint from no other cause but custom, which they blindly and implicitly follow, though they can adduce no benefit resulting from its observance. Custom and prejudice are most imperious tyrants, and rule triumphant over horsemen, as well as other classes of society. There are certain points established, certain axioms laid down, and the nine people out of ten, who never think for themselves, take every thing upon credit, and implicitly fall into the regulated course of opinion generally held, without stopping to inquire whether it happens to be just or unjust, tolerably right or entirely wrong.

If the horse be addicted to lying down in the day-time, I have generally found, on inspection, that he is either sick or lame, and consequently required immediate attention. Now, to tie horses to the rack under such circumstances, is obviously an act of cruelty. In my opinion, to attach any horse to the rack only serves to pave the way for the occurrence of those habits and vices which have for so many years baffled the attempts of horsemen to prevent, correct, and eradicate with certainty and permanency.

Many continue pertinaciously to assert that crib-biting is not injurious to the strength of horses. I am free to admit that they sometimes go through very arduous tasks and fleet performances, and may probably occasionally win a race; but capability of exertion would be still more evident, and the rapidity of his course increased, if the malady were removed. But no positive reliance can be placed in the exertions of a crib-biter or wind-sucker; for the natural power and ability of the animal must inevitably be weakened, and ultimately yield altogether to the ravages the indulgence of these propensities occasion on the frame of the animal, if prosecuted for any length of time.

A horse may be addicted to cribbing, and yet its pernicious effects shall not be perceptible, except to those who are thoroughly acquainted with the symptoms incidental to, and which uniformly accompany, the practice of the habit. I have known many horses labouring under this malady, whose condition appeared so good to the casual observer, that their owners have doubted my allegations as to their weakness; but a little extra exertion, in company with a sound horse of apparently equal power and capability, soon convinced the party of their error—the

strength of the crib-biter, after a short trial, proving very inferior to that of his opponent. I know well that horses indulging in the propensity must of necessity be injured or impaired in their stamina. Acting upon this calculation, when attending races, and accidentally discovering that any particular horse was either a crib-biter or wind-sucker, although he might be a 'favourite,' to use a turf phrase, 'I uniformly back him to lose, and am generally right.'

I have no hesitation in saying, that a crib-biter is *bona fide* an unsound horse; and notwithstanding the warring litigations that may have occurred occasionally in consequence of the habit, when a totally opposite notion to mine has been entertained on the question, yet I cannot avoid arraying my individual opinion in opposition to the fearful host of dissentients who may start up against me, when my assertion is perused. *I verily believe that a crib-biter, sold with a warranty of soundness, is, to all intents and purposes, returnable*: and I think I cannot be accounted unfair or erroneous in this position, founded on the well-ascertained fact, that 'crib-biting horses are injured in their stamina.'

That Nestor among veterinarians, Mr. Bracy Clark—to whom the horse is so greatly indebted, not only for his valuable publications, but likewise for the discovery of many parts and properties of the foot of the horse, and, above all, his perfection of the expansion shoe—observes very truly in his remarks on this subject, that 'the crib-biting horse has generally a lean, constricted appearance, the skin being contracted about the ribs; or a sunken watery eye, or else too dry; the muscles of the face also, as well as the skin, drawn up with rigidity. When unemployed in eating, his almost constant amusement is to grasp the rail of the manger with his front teeth, then to draw himself up to it, as to a fixed point, by a general contraction of the head, neck, and trunk; at the same time the effort is attended with a grunting sound.'

Now, many veterinary surgeons are of opinion that the particular noise made by the horse is caused by the expulsion of air, and that crib-biting is in fact nothing more than an effort at eructation, arising from indigestion or some viscid state of the stomach; whilst others pretend to say, that the habit is caused from pain in the feet. If either of these opinions were correct, to remove the destructive propen-

sity, recourse must necessarily be had to the *Materia Medica*, and the animal should be treated according to the rules of veterinary science. That these judgments must be erroneous, I prove clearly by the system I have established, which enables me to eradicate crib-biting and wind-sucking without the aid of medicine.

My attention, as I have before stated, has been directed to the prevention and cure of this destructive malady during a long period; and although I may dissent from many very respectable authorities, I must remark, that, during the whole course of my experience, I have uniformly observed that a crib-biter (as well as wind-sucker) inhales air into the stomach, which, from its construction, he cannot exhale or degurgitate; for horses, unlike dogs and many other animals, can neither belch nor vomit, consequently in its progress through the stomach and bowels, the oxygen, or elastic property of the air, is taken up by the system, which causes a redundancy of fixed air in the abdominal parts—hence arises flatulency, which of course produces indigestion, general debility, and an impaired stamina; and these alarming effects, if not attended to and removed, must naturally lead to disorders of dangerous tendencies.

To broach an opinion of this import is, I know, in opposition to the sentiments entertained by many hippologists; and that I may be clearly understood by every reader, I have purposely avoided the use of scientific words or technical phraseology, and expressed my meaning in plain unassuming language.

Others, however, of acknowledged skill and ability in their profession have lately had the liberality to confess, that, on mature consideration of the subject, they considered I was correct, and encouraged me to proceed in my course.

With much labour, patience, and perseverance, I aimed at the discovery of the *proximate cause of crib-biting*. My studies have been practical, for I could meet with no satisfactory information in books. I made experiments of various kinds, repeated and improved them, and thus approached nearer to my object, till at length I had the pleasure of perceiving that I was in the right track.

That the crib-biter inhales more air into the stomach than he can exhale, I am convinced; and on that conviction have founded my system for the treatment of the malady; the application of which,

I may assert without presumption, cannot fail of success, if attended to with sincerity and good will on the part of the grooms and other stable domestics.

A crib-biter of any standing becomes soured in temper ; his natural strength soon gives way ; weakness more or less ensues ; and he is rendered unfit for a proper day's work : yet horses labouring under the effects of this propensity are expected by their proprietors to perform the most violent exertions, and the fleetest and most rapid efforts are required of them ! Hunting, racing, in short every duty is imposed indiscriminately with sound animals, till the poor beast sinks prematurely under his accumulated misery, and is thus rendered unserviceable many years before his natural term. Under kind and judicious treatment, the horse would be much longer lived than is generally supposed, as existing facts testify.

Various remedies, purporting to be infallible, for vicious horses have of late years been put forth to the world, but nothing has in reality been gained by them. I allude to torturing straps, bands, and other vexatious applications, which only tend to sour the disposition of the animal, and, on their removal, leave him more inveterately addicted to his evil habits. Others, from want of a better remedy, have recourse to loathsome and nauseous experiments, which are as futile as they are disgusting, and cannot possibly be expected to produce any permanently good effects ; for as the matter or ordure employed dries and hardens, it naturally loses its effluvia, and consequently requires repetition to make the process adopted effectual, even if it were proper to pursue it. An accumulation of filth on the manger is the result ; and we all know that that utensil should be kept particularly clean. I have no patience when I reflect on such proceedings. It is obvious to any one conversant with horses, that a filthy stable is the forerunner of disease. The only consequence emanating from conduct so inconsiderately ignorant is, that the silly attendant, for his own convenience, is soon compelled to remove the dirt, gaining nothing but additional labour for his assumed sagacity.

He who pretends to correct the horse, by inventing apparatus with that view, should previously study the nature and character of the animal, in addition to the contemplation of his own emolument. To exemplify this observation, let us con-

sider for a moment the fate of the straps with the spring and spikes. They were introduced under the protection of weighty patronage ; and all that influence could do was adopted to facilitate their reception in the highest quarters, and render their adoption general. They were predominant for a time, and were probably esteemed by persons unacquainted with the matter, who received the *ipse dixit* of others as truth 'sacred as Holy Writ ;' and accordingly the straps were considered and recommended by many persons as a certain cure for crib-biters. However, when essayed by those whose knowledge and intelligence could be relied on, it was discovered that they could never fulfil the object promised to purchasers, and not the most distant prospect of efficacy could be entertained. Their application only served to alarm, irritate, and tease the horse, without producing any beneficial effects ; and, on their removal, he was generally found as inveterately addicted to his propensity as ever. A horse will never become tractable under fear, which is soon excited, as his timidity is proverbial. What is rational can only be attained by rational ways ; and in nature an object cannot be compassed but by means consistent with nature. The straps were invented without any adherence to this maxim ; hence their inutility and consequent downfall.

Covering the top of the manger with a sheep-skin, the woolly side outwards, is a remedy still in vogue amongst persons who act and move upon second-hand information. This insignificant process continues a favourite, and is very sagely recommended as a preventive in many of the provinces. I have more than once seen it used as a precaution, and in London too, above all places !

The execrable and infamous custom of burning the palate of the mouth as an antidote to crib-biting, cannot be too strongly reprobated, and must not be passed over in silence : but, without stopping to descant on the cruelty of this practice, I have merely to observe that the proselytes to it gained very little by their barbarity ; as the horse is only checked so long as the soreness and tenderness caused by the cauterising exist, and no sooner has the pain subsided than he recommences operations. Should a gentleman discover the wound, the inflictors, ashamed of their proceedings, take special care not to divulge the real cause, but quibble and prevaricate, till at length I

have known them hit upon the expedient of informing an inquirer that the poor thing had been *scared for the lampas*, evincing by the subterfuge as much ignorance as they possess want of feeling!"

Before we conclude the present article it becomes necessary that we should say something respecting Mr. Yare's anti-crib-biter; and it would have given us the utmost pleasure could we have thought as well of the anti-crib-biter as we do of that gentleman's judicious observations, quoted above. But our duty to the public compels us to state, that the anti-crib-biter is not what it professes to be; it is *not* "an infallible remedy for the above vicious and destructive habit in horses." The anti-crib-biter is merely a muzzle; so formed, however, that the horse is enabled to use his lips and tongue, and thus to draw hay or corn to his mouth, without being able to lay hold of the manger with his teeth; while, therefore, the muzzle is on, it acts as a preventive from biting the manger, and nothing more:—and this, in fact, amounts to little. It does not prevent the animal from *sucking his wind* (as it is called); nor indeed, in the instances which have fallen under my observation, does it prevent the animal from performing a sort of intended apology for crib-biting. Take off the muzzle, and the horse immediately goes to his old work quite as eagerly as ever. Every attempt to remedy the disgusting vice of crib-biting is praiseworthy; and it was laudable in Mr. Yare to introduce his new invented muzzle; but when the instrument is represented as "*an infallible remedy for the above vicious and destructive habit in horses*," the assertion or statement is *grossly erroneous*, to say the least of it. If it is to be useful, the horse must constantly wear it; and even in this case, its utility is very doubtful. In a few years, I have little doubt, it will be entirely laid aside, if not altogether forgotten.

CROPPING of the ears of horses is exploded.

CROSS-BOW, an instrument superseded by the fowling-piece; at present occasionally used in rook shooting. The best cross-bow I ever met with belonged to a friend of mine, who took particular pleasure in what he called perfect shooting. As near as I can remember, its bow, commonly called the lath, was made of the best shear steel, of an oblong square, the segment of a circle of six feet, thirty-

six inches long: the *cock* which was attached to the lever is of ancient invention, and which yet defies improvement, was let off by the thumb of the left hand (which is better than by a trigger). Our distance of shooting was ten yards horizontal at a table knife, the back of which was sunk into a turf (or peat) and he who cut the most bullets in half a dozen, was acknowledged the best shot.—The balls were half an ounce each, the *setting* of the bow, as it is called, (that is, adjusting the two sights) should be, at the above distance, horizontal, and will then *answer* to shoot from the angles of thirty to fifty, with the same nicety. The lath should not be too strong, as it renders the diversion both laborious and painful. Lancashire only has been famous for the manufacture of cross-bows.

CROWN-SCAB is a partial appearance about the coronet of a horse, varying in different subjects, according to the state of the object diseased. It partakes a little of the disorder called grease, to which, if unattended to, it would soon degenerate; being a species of that defect, but in an inferior degree. In some it appears as a scurfy eruption, raising the hair, and turning it different ways, from whence soon oozes a kind of oily ichor, fœtid in smell, and greasy in appearance: in others, the discharge is thinner, and more watery, according to the greater or less degree of morbidity in the frame, or acrimony in the blood. It has been a practice with the old school to counteract its effects by vitriolic lotions, slight styptics, and strong repellents: scientific disquisition will not, however, justify such treatment, but recommend daily mollification with warm oatmeal gruel and a soft sponge; when which is wiped gently dry with a soft linen cloth, it may be very mildly impregnated with camphorated spermaceti ointment, and the cure assisted by mercurial physic, diuretic balls, or a course of antimonial alterative powders.

CRUPPER, a leathern convenience, or long strap, annexed to the hinder part of the saddle, having at the other extremity a loop to pass under the tail; by which the saddle is prevented from getting forward, and bringing the rider upon the neck of the horse. Such aid is by no means required with horses well made, and uniformly proportioned: they are rarely brought into use, but where a horse is lower before than behind; and are in so much disrepute with amateurs and connoisseurs, that a real sportsman would

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sooner part from his horse than to be seen to ride with a crupper.

CUB. A fox of the first year.

CURB is a callous enlargement, approaching ossification, and is situate at the lower junction of the bones, at the hind part of the hock, originally attended with stiffness, and lastly with lameness and pain. Curbs are evidently produced by kicks, blows, sudden turns or twists, riding too hard (or drawing too much weight) up hill: they should be attended to on their first appearance, when they soon submit to the usual modes adopted for extirpation. Mild blistering frequently succeeds, particularly where the operation is twice performed; but when the case is of long standing, a few slight feather strokes with the firing-iron may be necessary to confirm the cure.

CURB-CHAIN. See **BIT**.

CURRY-COMB, a well-known stable utensil, in constant use for the cleaning of horses. They are much more applicable to post and draft horses, than to horses of superior description, the fineness of whose coats, and the tenderness of whose skins, occasion much uneasiness to them

C U T

during the prickly persecution, and to whom good, sweet, clean straw-bands are greatly preferable; it being matter of fair doubt, whether more horses are not lamed in the stable under the dancing ceremony of the curry-comb, than by accidents upon the road, or strong exertions in the field.

CUTTING IN ACTION, in the manege called interfering, is lacerating the round inside projecting part of the fetlock joint, with the edge of the shoe, upon the foot of the opposite leg. This arises much more frequently from the indifference or neglect in the owner, than from any imperfection or defect of the horse: more horses cut from being broke and put into work too young, rode too long journies in a day, or over-worked when weary, than from any cause whatever. Some horses, it is true, cut from their formation, particularly those narrow in the chest.—Carriage horses, too, very frequently cut behind; but this must in a great measure be occasioned by the projecting parts and cavities in the pavement, for all which the surest footed horse existing cannot be prepared.

D

DACE, or **DARE**, is gregarious, is a great breeder, very lively, and during summer is fond of playing near the surface. Its head is small, the irides of a pale yellow, the body long and slender; its scales are smaller than those of the roach, and it is upon the whole a handsomer fish: the back is varied with dusky, and a cast of yellowish green; the sides and belly silvery; the ventral, anal, and caudal fins are sometimes of a pale red hue; the tail is very much forked. The dace is seldom above ten inches long; although, in a list of fish sold in the London markets, with the greatest weight of each, communicated to Mr. Pennant, there is an account of one that weighed a pound and half; and, according to Linnæus, it grows to a foot and a half in length.

The haunts of dace are deep water near piles of bridges, where the stream is gentle, over gravelly, sandy, and clayey bottoms; deep holes that are shaded, water lily leaves, and under the foam caused by an eddy; in the warm months they are to be found in shoals on the shallows near to streams: dace spawn in March, are in season about three weeks after; they improve and are good about Michaelmas, but are best in February, and are said in that month, when just taken, scotched and broiled, to be more palatable than a fresh herring.

This is a fish affording great sport to the angler; indeed, more pleasure than profit, for the flesh is insipid, and full of bones. The baits for dace are the red-worm, brandling, gilt-tail, cow-dung and

D A C E

earth-bob, and indeed any worm bred on trees or bushes, that is not too big for his mouth, and almost every kind of fly and caterpillar. Flesh flies upon the surface with the hook put into the back between the wings, the line from the middle downwards of single hairs, and a trifle longer than the rod, which ought to be eighteen feet at least, and as light as possible; the flies can be kept in a phial; fix three very small hooks upon single hair links, not above four inches long to the line, and in a summer's evening, at the smoothest part of the end of a mill stream, from seven or eight, and so long as light continues, the dace will yield diversion. In the same manner, they will rise in the morning at the ant-fly, if used at the foot of a current or mill stream, or on a scour before the sun comes on the water.

After rains, when the river is nearly level with its banks, use the caterpillar fly or a small red palmer and a yellow gentle, (the yellower the better;) run the hook through its skin, and draw it up to the tail of the fly, then whip on the surface, the dace will rise freely.

Another way to take this fish from the middle of April until the beginning of October, is by artificial fly-fishing with a long line, the fly generally either black, brown, or red, made very small, on a hook No. 8 or 9. The three may be on the line together, about a yard asunder, letting the black one be the lower fly, and that alone have a gentle at the end of it, and the other two to be the drop flies; by this mode many dozens may be taken in the course of a morning or afternoon; when they are on the fords, and the weather is favourable, particularly in rivers where the tide flows a moderate height, (as for instance, in the Thames, between Kew and Richmond bridges) for every tide is a kind of fresh water to the fish, and, as it clears off, they will take astonishingly. Their chief biting times are, hot weather, early or late; in cold, the middle; and in mild cloudy weather, the whole of the day; but after a hot, bright sun, they will take the above flies in the clearest water, from a little before sun-set, until dark. Above Richmond, when the weeds begin to rot, a grasshopper with the first joint of his legs pinched off, and the hook put in at the head and brought out at the tail, and used as an artificial fly, does great execution in a warm day upon the shallows; this fishing can only be done in a boat, which is to drive down with the current (having a heavy stone, by way of anchor, fastened to a rope five or six yards long, at the head of the punt or wherry): when come to a likely spot, drop the stone, and, standing in the stern, throw right down the stream, and then to the right and left; after trying about a quarter-of-an-hour in a place, weigh anchor, and proceed in the same manner at the next probable haunt; use a common fly-line about ten yards long, and a strong single hair next the hook. It may be said there is less certainty of catching dace in this way, than with a float and ground-bait; but to those who are situated near the banks of the Thames, between Windsor and Isleworth, so as to take advantage of a still, warm, gloomy day, it will afford much more amusement than the ordinary method.

In angling for dace with maggots, the tackle cannot be too fine,

the float small, the hook No. 9, the shot a foot from it: by baiting the place with a few maggots before fishing, the diversion will be increased. If using gentles in an eddy between two mill-streams, and the water is only two or three feet deep, there will be greater chance of success than where it is deeper; use here a cork float, bait with three large gentles, and strike at the first nibble; if there are large dace in the mill-pool, they will resort to this eddy.

In bottom fishing for dace, let the ground-bait be bread, soaked an hour in water; put an equal quantity of bran, knead it to a tough consistence, and make it into balls, with a small pebble in the middle to sink them; throw these balls a little up the stream from the spot where it is proposed to angle, that the current may not drive them beyond the reach of the line. Fish for dace within three inches of the ground, especially where the ant fly is the bait under water. The compiler has caught dace of upwards of a pound weight, upon night lines, baited with a minnow for eels.

In the Mersey, near Warrington, a fish called the Graining is taken, which much resembles the dace, but is slenderer, and the back straighter; the usual length does not exceed eight inches. The colour of the back is silvery, with a blueish cast; the eyes, ventral and anal fins, are paler than those of the dace; but the pectoral fin is redder, and they are much better eating.

DAISY-CUTTER. A sporting term for horses that go so near the ground, that they frequently touch it with the tip of one toe or the other, and are constantly in danger of falling. A horse with broken knees may be considered of this description.

DAKER HEN, LAND RAIL, or CORN CRAKE. The length of this bird is nine inches; the bill is one inch long, strong and thick, and of a greyish brown, formed exactly like that of the water hen, and makes a general distinction: the eyes hazel; the feathers on the upper parts are of a rufous brown, each dashed down the middle with black; the under parts the same, but paler, and not spotted, and edged with pale rust colour; chin very pale: both wing coverts and quills are of a lightish chesnut; the fore parts of the neck and breast are of a pale ash colour; a streak of the same colour extends over each eye, from the bill to the side of the neck; the belly is of a yellowish white; the sides, thighs, and vent, are faintly marked with rusty-coloured streaks; the tail is short, and of a deep bay; the legs are of the colour of the bill. It is always found among the corn, grass, broom, and furze. The land rail quits this kingdom before winter, and repairs to other countries in search of food, which consists of worms, slugs, insects, and seeds of various kinds; but

the water rail endures our sharpest seasons.

The corn crake is the harbinger of summer, and begins to be heard about the middle of May, and continues its note during the breeding season; it then migrates.

In meadows, from the time the grass is grown, until cut, there issues from the thickest part of the herbage a sound, expressing the word *crek, crek, crek*, and which is a noise much like that made by stripping forcibly the teeth of a large comb under the fingers: as we approach, the sound retires, and is heard fifty paces off: it is the land rail that emits this cry, and begins to be heard about the second week in May. The land rail (says Mr. Pennant) lays from twelve to twenty eggs of a dull white, marked with a few yellow spots; but, according to Latham and Buffon, the number of eggs does not exceed twelve, which are larger than those of the quail, and more coloured; are an inch and a half in length, and not unlike those of the missel thrush, being of a reddish cinereous white, marked with ferruginous blotches, with a few indistinct ones of a pale reddish ash colour: the nest is negligently constructed with a little moss, or dry grass, and placed usually in some hollow of the turf where the grass is thickest. The young crakes are covered with a black down, and run as soon as they burst the

shell, following their mothers, but quit not the meadow till the scythe sweeps away their habitation. The late hatches are plundered by the mower; all the early broods then shelter themselves amongst buck-wheat, oats, very frequently in clover grass, and in waste grounds overspread with broom, where in summer they are often found: a few return again to the meadows at the end of that season.

It is easily known when a dog scents a land rail, from his keen search, and the obstinacy with which the bird persists in keeping the ground, insomuch that it may be sometimes caught by the hand; it often stops short and squats; the dog, pushing eagerly forward, overshoots the spot, and loses the trace; and the rail, it is said, profits by his blunder, and retraces its path; nor does it spring till driven to the last extremity, when it flies heavily, and generally with its legs hanging down, but never far at a flight: when it alights, it runs off, and before the sportsman has reached the place, the bird is at a considerable distance; nor is it sprung a second time but with great difficulty. The fleetness of its feet compensates for the tardiness of its wings; all its excursions, windings, and doublings in the fields and meadows, are performed by running. When upon wing, if it flies to a hedge, the sportsman is recommended to look upon the boughs, as it will perch and sit till he almost touches it, and frequently, by that means, eludes all pursuit.

Corn crakes are plentiful in some parts of these realms; in Ireland, particularly so. They are in the greatest plenty in the Isle of Anglesea, where they appear about the third week in April, supposed to come there from Ireland: at their first arrival, it is common to shoot seven or eight in a morning. They abound in the county of Caithness, in Scotland, and are found in most of the Hebrides, and the Orkneys. Few places in England are destitute of them in summer, but they are nowhere what may be called common. It is observed, wherever quails are in plenty, the crane abounds: on their first appearance in England, they are so lean as to weigh only four ounces, but before their departure have been known to exceed eight, and are very fat: their flesh is reckoned an exquisite morsel.

Buffon states, that when the land rail returns to other countries, the flight commences during the night, and, aided by a favourable wind, it attempts the passage of the Mediterranean, where, no doubt,

many perish, as it is remarked that their numbers decrease upon their return; that migrations of this bird extend more to the north than the south, and, notwithstanding the slowness of its flight, it penetrates into Poland, Sweden, Denmark, and even Norway. To the northern countries, he conceives, the land rail repairs, as much for cool situations, as to obtain its proper food; for although it eats the seeds of broom, trefoil, groundsel, and fattens in a cage on millet and grain; and when grown up, every sort of aliment suits it; yet it prefers insects, slugs, and worms; and these, which are necessary for its young, can be found only in shady, wet grounds: the humidity of those of Ireland is also congenial to its nature.

DAMASCUS ARABIAN (sire of Signal,) was a black-brown horse, and foaled in 1754. He arrived in England in September, 1760; and in 1761, 1762, and 1763, he covered none but thorough-bred mares, at Mr. William Coates's, at Smeaton, near North-Allerton, Yorkshire, at 5gs. and 5s.; in 1764, at Mr. Samuel Tate's, at Mickleham, near Leatherhead, Surrey; in 1765, at Mr. Coates's, Smeaton; in 1766, at Mr. John Tuting's, at Newmarket, at 1 guinea and 2s. 6d. (none of his get having started); at the same place, in 1767, (on account of Signal's superior running,) he was again advanced to 5gs. and 5s.; in 1768 and 1769, at the same price; in 1770, at 5gs. and 10s. 6d.; in 1771, at Wickham, near Witham, Essex, (same place as Captain,) at 5gs. and 5s.; in 1772 and 1773, at the same place, at 10gs. and 5s. The following is copied from the advertisement: "He was generally known to be of the purest Arabian breed, in that country, without any mixture of the Turcoman or Barb;—a horse of bone and substance; 14 hands half-an-inch high, and upwards, which size very few Arabians ever exceed. He was bred by the Arab, who was shieck or chief of Acria, noted for his breed of horses, and presented, when a foal, to the bashaw of Damascus, and given by him to a rich Turkey merchant at Aleppo, with whom the bashaw had great dealings in money affairs. He was bought there, at two years old, by an English gentleman, in whose possession he continued till his arrival in England. This account may be seen, certified on stamp paper, at Smeaton," &c. He was sire of Mr. Vernon's Flush, Mr. March's Mungo and Trump, Sir F. Evelyn's Atom, Mr. Strobe's Little Joe, Mr. Burlton's Mufti and Pigmy,

Mr. Pleasant's Magpie, &c. He got the dam of Mr. Wentworth's Merry Wakefield, (afterwards Mr. W. Wilson's Melinaus) which dam was also the dam of the Ancaster Mare, that bred Mr. Fenton's Allegro, Dapple, Miss Grimstone, &c.

DAPPLE. Horses are so called who have partial variegated hues in the coat of different sizes, constituting small circles, both lighter and darker than the general colour of the horse. Such are said to be dappled; hence we have dapple bays, dapple greys, and sometimes dapple blacks.

DARLEY ARABIAN (sire of Chidders) was the property of Mr. Darley, of Buttercramb, near York. A brother of that gentleman being an agent in merchandise abroad, became a member of a hunting club, by which means he acquired interest to procure the said Arabian for a moderate sum, and which he sent over to England as a present to his brother. He also got Almanzor, a very fleet horse; the Duke of Somerset's White-legs, own brother to Almanzor, and thought to be as good, but meeting with an accident, he never ran in public; Cupid and Brisk, good horses; Dædalus, a very fleet horse; Skipjack, Manica, Aleppo, Brisk, Bully-rock, Whistlejacket, and Dart, good plate horses, though out of indifferent mares; and Lord Tracey's Whimsey, a good plate mare. He covered only a few mares besides Mr. Darley's.

DEBILITY. A state of weakness, emaciation, and inertness of the animal powers. It may be either general or local. In the human subject, debility is a fertile source of diseases, chiefly of the chronic kind. So it is also in brutes, to a certain degree, though their diseases are generally simple, and apt to proceed to a speedy termination. The diseases of debility in the horse are, dropsy, grease, asthma, palsy, &c.

DECEMBER. Grouse-shooting terminates on the 10th of this month. Indeed, these birds become very difficult of approach at a much earlier period; and, after the middle of September, are sufficiently wild as to be approached only by stratagem. When snow has covered the mountains, grouse may be observed in packs, sitting upon it, and brooding, as it were, upon the miserable prospect before them. At such times, they may be approached, by the shooter putting on a white frock over his clothes, so as to resemble in some degree the colour of the

snow by which he is surrounded. This is practised by poachers, who are generally found numerous enough on most, if not all, the grouse mountains in England.

Notwithstanding the termination of the superlative diversion of grouse-shooting, December may be considered as the zenith of the sporting season. Partridges have become wild, it is true; but cover shooting may be enjoyed in perfection. This is the season of the pheasant and the woodcock, to say nothing of snipe;—for wild-fowl shooting, if it be allowable to class this chilly, shivering business, amongst the list of legitimate field sports.

Coursing can be enjoyed in the utmost perfection, unless prevented by frost or snow, or both. Hares run well at this period.

The preceding remarks are equally applicable to hare-hunting.

December is admirably calculated for the pursuit of the fox. At this period foxes run well; and a good scenting day will frequently occur during this month. A good fox and a good scent cannot fail to produce the perfection of this doubly delightful, this animating and princely, diversion. Fox-hunting leaves all other field sports at an immeasurable distance.

DECOCTION. Any thing boiled. By this process, the medicinal properties of roots, barks, &c. are communicated to water. The most common way is to boil the ingredients till the water is half consumed, the liquor (which, properly speaking, is the decoction) being afterwards strained off.

DECOY. A decoy is generally situated in a marsh, so as to be surrounded with wood or reeds, and, if possible, both, the better to keep the pond quiet, and that the repose of the fowl may not be interrupted; for the greatest parts of the animal world pass their lives in a state between sleep and inactive reverie, except when they are excited by the call of hunger. In this pond the birds sleep all day; so soon as the evening sets in, the decoy rises, (as it is termed,) and the wild fowl feed during the night. If the evening is still, the noise of their wings, during their flight, is heard at a great distance, and is a pleasing, although rather a melancholy, sound. In Somersetshire, this rising of the decoy in the eve is called rodding. The decoy ducks (which are either bred in the pond-yard, or in the marshes adjacent; and who, although they fly abroad, regularly return for food to the pond, and are mixed with tame ones, which never

quit the pond, and are taught for this purpose) are fed with hempseed, oats, and buckwheat, of which it will take, for the use of a pond for a year, about eight quarters of oats, one of hempseed, and one of buckwheat. The other expenses are—a man to constantly attend the decoy; every four years the poles and nets will be new, as in the intervening years they will be replaced; some at one time, some at another, so as to be all renewed in the above period. Reeds for repairing screens, Dutch turf, rent, decoy birds, and many *et ceteras*, are also to be included; and the repayment all depends upon the haunt of fowl which take to the pond.

In working, the hempseed is thrown over the skreens in small quantities, to allure the fowl forward into the pipes, of which there are several, leading up a narrow ditch, that closes at last with a funnel net. Over these pipes, which grow narrower from the first entrance, is a continued arch of netting suspended on hoops. It is necessary to have a pipe for almost every wind that can blow, as upon this circumstance it depends which pipe the fowl will take to; and the decoy man always keeps to leeward of the wild fowl, that his effluvium should not reach them; and this he likewise takes a further care to prevent, by keeping a piece of Dutch turf burning in his mouth or hand: for such is the acute sense of smelling which wild fowl possess, that, should the pond be full of fowl, if they scented a man not a bird would remain in it a moment. Along each pipe are placed reed skreens at certain intervals, which protect the decoy man from being seen, until he pleases to show himself, or the birds are passed up the pipe, to which they are led by the trained birds, who know the whistle of the decoy man, or are enticed by the hempseed. A dog, which is generally preferred to be of a red colour, is sometimes used, who is taught to play backwards and forwards, between the skreens, at the direction of his master; the fowl, roused by this new object, advance towards it, whilst the dog is playing still nearer to the narrow end of the pipes, until at last the decoy man appears from behind the skreens; and the wild fowl, not daring to pass by him, and unable to escape upwards on account of the net covering upon the hoops, press forward to the end of the funnel-net, which terminates upon the land, where a person is ready to receive them and break their necks; in doing of which there is much dexterity. The

trained birds return back past the decoy man into the pond again, until a repetition of their services is required. A side wind is the best to work the birds.

The general season for catching is from the latter end of October until February. The taking of them earlier is prohibited by the Act 10 Geo. II. c. 32, which forbids it from June 1 to October 1, under a penalty of five shillings for each bird destroyed within that space.

It was customary formerly to have in the fens an annual driving of the young ducks before they took wing. Numbers of people assembled, who beat a vast tract, and forced the birds into a net placed at the spot where the sport was to terminate. A hundred and fifty dozen have been taken at once; but this practice being supposed detrimental, has been abolished by Act of Parliament.

At Spalding, a record of this driving of the old birds, when unable to fly, states, "that at the ducking on Thursday last were taken up one hundred and seventy-four dozen of mallards or drakes moulting; and on Monday forty-six dozen and a half; in all, two thousand six hundred and forty-six mallards." The above account certainly proves the necessity of parliamentary interference to prevent such slaughter, at a time, too, when the birds must be sickly and unwholesome.

A decoy in some seasons is astonishingly lucrative; in 1795, the Tillingham decoy, in Essex, at that time in the occupation of Mr. Mascal, netted, after every expense, upwards of eight hundred pounds, and the only birds taken were duck and mallard.

In 1799, ten thousand head of wigeon, teal, and wild ducks, were caught in a decoy of the Rev. Bate Dudley, in Essex.

The tricks which the decoy men employ to destroy the haunt of the birds in each other's ponds are various, and as well calculated to produce the mischievous effects they intend, as can well be devised; such as putting a slightly-wounded bird or two into the pond—not a bird will *pipe* until the *stricken deer* is removed; and the natural shyness of the bird is so awakened by the pain of his wounds, that it is sometimes the labour of two or three days to secure him and restore tranquillity. A second manœuvre is, thrusting a feather through the nostrils of a wild fowl, and launching it into the decoy: here again not a fowl can be caught until this deformed stranger is got rid of. A third, and perhaps the most decisive, is, starting

train oil into the brook or rill which supplies the pond at some distance from it; some portion of this will be carried by the current into the decoy; and in an instant the fowl, however numerous, quit, and

will not resume their haunt until every taint is removed.

DEER. See FALLOW DEER, ROE-BUCK, STAG, &c.

DEER-STEALERS are those nocturnal depredators who, setting at defiance all laws, all possession of property, and the protectors of it, disguise themselves, and, under cover of the night, attack, seize, kill, and carry away, from the best fenced parks, bucks or does (according to the season) with the greatest impunity. Their mainspring of action is a dog of the cur kind, called "a coney-cut lurcher:" this is a breed peculiar to itself, and those who use it; being a light sort of brindled wirey-haired mongrel, with a natural stump tail, having the appearance of a bastard greyhound. They are exceedingly fleet and lasting, run mute (by either nose or sight); and are so well trained for the purpose to which they are solely appropriated, that they are equally expert in picking up a hare, or pulling down a buck. After having executed their office, though in the darkest night, they will soon recover their master by scent, and lead him to the game so pulled down, which is repeated till a sufficiency is obtained for that journey; the business having been so systematically conducted, by the various neighbouring emissaries and associates concerned, that horses and carts were employed, and a regular routine of robbery carried on, by periodical and alternate depredations upon most of the parks within fifty or sixty miles of the metropolis. Many living in a line of respectability in other respects, were publicly known to be employed in the nefarious practice without fear of detection; for no informer could come forward, without a very great probability of destruction to his person or property, from some of the many confederates concerned.

These offences, so long thought but little of, became at length enormities of such magnitude, that the legislature discovered a necessity for the introduction of new and more severe pains and penalties. A variety of statutes were enacted in the reigns of former sovereigns for the punishment of such offenders, which are now fully concentrated in the Acts of Parliament passed in the reign of George III.

By these statutes, if any person shall hunt, or take in a snare, kill or wound, any red or fallow deer, in any forest, chase, &c. whether inclosed or not, or in any inclosed park, paddock, &c. or be aiding in such offence; they shall forfeit twenty pounds for the first offence; and also thirty pounds for each deer wounded, killed, or taken. A game-keeper, guilty of either, to forfeit double. For a second offence, the offenders may be transported for seven years.

Justices may grant warrants to search for heads, skins, &c. of stolen deer, and for toils, snares, &c. and persons having such in their possession, to forfeit from ten to thirty pounds, at the discretion of the justices. Persons unlawfully setting nets or snares, to forfeit, for the first offence, from five to ten pounds; and for every other

DEER - STEALING

offence, from ten to twenty pounds. Persons pulling down pales or fences of any forest, chase, park, paddock, wood, &c. subject to the penalties annexed to the first offence for killing deer. Dogs, guns, and engines, may be seized by the park-keepers; and persons resisting shall be transported for seven years. Penalties may be levied by distress; in default of which, offenders to be committed for twelve months.

Persons disguised, and in arms, appearing in any forest, park, paddock, &c. and killing red or fallow deer, deemed felons without benefit of clergy. Prosecutions limited to twelve months from the time of the offence committed. Destroying gorse, furze, and fern, in forests and chases, being the covert for deer, is liable to a penalty from forty shillings to five pounds; to be levied by distress; and if no distress, the offender to be committed to the county gaol, for a time not greater than three months, nor less than one.

Deer-stealing, formerly so much practised, has of course ceased, as the forests are for the most part enclosed, and deer no longer to be found in a state of freedom, except some few which may perhaps still be found in Devonshire. Deer-stealing was much in vogue in the days of Shakspeare; and to the dread of punishment for this offence we are indebted for the works of our immortal bard. Shakspeare had, in early life, fallen into bad company, amongst whom were some that followed deer-stealing, and with whom he was engaged more than once in robbing Charlecote Park, near Stratford-on-Avon, belonging to Sir Thomas Lucy: for this he was prosecuted, and, in order to be revenged, wrote a ballad upon that gentleman; and although this, perhaps the first essay of Shakspeare's poetry, be lost, it is said to have been so very severe, that it incensed the person who had already commenced a criminal prosecution against him to that degree, that he was obliged to leave his business and family in Warwickshire, and shelter himself in London; where his first employment was, to wait at the door of the play-house, and hold the horses of those who had no servants; for in the time of Elizabeth, there being no hackney coaches, it was a common practice to go to the theatre on horseback. In this office, Shakspeare's attention became so remarkable, that he was always called for, and scarcely any other person trusted with a horse while he could be had. He was afterwards received into the company of players then in being, perhaps rather as an attendant or servant, than as a performer. His admirable wit soon distinguished him, if not as an actor, yet as a most excellent writer. In his *Merry Wives of Windsor*, Justice Shallow is introduced in remembrance of his Warwickshire prosecutor.

Gilpin, in speaking of the New Forest, says, "I had some occasional discourse with a forest borderer, who had formerly been a noted deer-stealer. He had often, like the deer-stealer in the play,

Struck a doe,
And borne it cleanly by the keeper's nose:

indeed, he had been at the head of his profession; and, during a reign

of five years, assured me he had killed, on an average, not fewer than a hundred bucks a year. At length, he was obliged to abscond; but, composing his affairs, he abjured the trade, and would speak of his former arts without reserve. He has more than once confessed the sins of his youth to me; from which an idea may be formed of the mystery of deer-stealing in its highest perfection. In his excursions in the forest, he carried with him a gun, which unscrewed into three parts, and which he could easily conceal in the lining of his coat. Thus armed, he would drink with the under keepers without suspicion, and, when he knew them engaged, would securely take his stand in some distant part, and mark his buck. When he had killed him, he would draw him aside into the bushes, and spend the remaining part of the day in a neighbouring tree, that he might be sure no spies were in the way: at night, he secreted his plunder. He had boarded off a part of his cottage (forming a rough door into it, like the rest of the partition, stuck full of false nail-heads) with such artifice, that the keepers, on an information, have searched his house again and again, and have gone off satisfied with his innocence, though his secret larder at that very time, perhaps, contained a brace of bucks. He had always a quick market for his venison; for the country was as ready to purchase as these fellows were to procure it. It is a forest adage of ancient date—*Non est inquirendum unde venit venison.*

A peer suffered for a murder committed by a gang of deer-stealers whom he had thoughtlessly accompanied. This occurrence took place in the year 1542, when Lord Dacres, in a frolic, went with the gang just mentioned to steal deer from the park of Sir Nicholas Pelham. The park-keeper was killed; and as the noble lord was taken along with the rest, and accused of the murder, he was persuaded to plead guilty, under the full persuasion that no difficulty would be experienced in procuring a pardon for a person of his exalted rank. He was, however, executed, though it was ascertained that he was not present when the murder was committed.

DEFAULT; a term in hunting, which custom has reduced to an abbreviation, and it is in general termed fault. The hounds, during a chase of any kind, when losing the scent, throwing up their noses, seeming at a loss, and dashing different ways, in anxious and earnest hope of recovery, are then said to be at "fault."—This is the very moment when the judgment of the huntsman is most required, and the soonest to be observed. Different opinions have been formed, and decisions made, respecting the proper mode of proceeding at so critical a juncture, whether to try forward, or to try back: here a great deal depends upon the game you are hunting of, and the country you are hunting in, which circumstances at the time can only determine. However opi-

nions may vary upon some particular points, all seem to coincide upon others; that the ground should, for fox, be made good forward, previous to trying back; that a general silence should prevail, and not an unnecessary aspiration be heard, that can tend to attract the attention of a single hound from the earnest endeavours he is so busily engaged in; by which means nineteen faults are hit off out of twenty, without greater delay, suspense, or disappointment.

If hounds, in pursuit of fox, throw up on a fallow or highway, they cannot be got forward too soon; certain it is the fox has not stopt there: not so with the hare, who is likely to have thrown herself out by the side of one, or squatted in a land (or furrow) of the other. Faults

with the former, are much more easily and expeditiously hit off than with the latter, with whom they are sometimes tediously incessant, particularly with a young or hard hunted hare: it should, therefore, be a fixed rule, never to abandon a fault, if possible, without recovery; it being as likely, at least, to bring the lost hare to a view, as to find a fresh one.

—See HUNTING.

DEFECTS in horses differ very materially from what are termed blemishes, (which see:) the latter are always considered conspicuous, and easily observed by the eye of experience and judicious inspection. A horse may have defects not so readily to be perceived, and consequently remain a longer or shorter period before they are discovered: he may prove incorrigibly restive, and not happen to display it in a new situation for days or weeks; he may be a seasoned and invincible crib biter; he may be vicious to dress; a kicker in the night; doubtful in the eyes; awkward in action; troublesome to saddle, and, when saddled, more troublesome to ride. Though these are defects, yet the dealer (proceeding upon the purest principles of integrity) conceives them professional privileges of secrecy, which he is not bound in honour to disclose; affecting to believe, they are totally abstracted from every idea conveyed in the declaration and warranty of being “perfectly sound.”

That this matter, however, may be the better and more universally understood, it cannot be inapplicable to introduce the opinion which the late Lord Mansfield held publicly in the Court of King’s Bench; “that a restive horse was tantamount to an unsound one; and upon this principle, that if the subject so purchased was evidently restive, and would not, or could not, by fair means, be prevailed upon to go where he was required, he was equally useless with an invalid whose lameness or infirmity prevented him from executing the purposes for which he was purchased.” From such authority (founded upon the basis of equity) there can be but little, if any, doubt, an action brought for the recovery of money paid for a restive horse, such horse having been “warranted sound,” would obtain a verdict.—As, however, the proverbial uncertainty of the law, the confusion of witnesses, and the caprice of a sleepy jury, are very slender reliances for the man of prudence and honour, who wishes “to do unto others as he would be done unto,” the

safest method for every purchaser is to take (from the gentleman as well as a dealer) a proper receipt, upon payment of the money, that such horse or mare is warranted sound and free from vice; by which litigation and law-suits may be prevented.

DELPINI, originally called “Hackwood,” was bred by the late Duke of Bolton; foaled in 1781; and got by High-flyer out of Countess, who was got by Blank. Delpini proved himself a very capital racer, beating most of the best horses of his year at all ages. He has also acquired some celebrity as a stallion, being the sire of Kilton, Prior, Skelton, Miss Ann, Tiptoe, Abram Wood, Cardinal, Clymene, Dido, Golden Locks, Dapple, Flutter, Little Scot, Miss Beverly, Nixon, Opposition, Timothy, Agnes, Blue Beard, Camperdown, Duchess, Hopwell, L’Abbé, Laborie, Patch, Stourton, Symmetry, Baron Nile, Maid of the Mill, Slap-bang, Sabella, and many others, all winners.

DEMI-AIR, OR DEMI-VOLTE, in the manege, one of the seven artificial motions of a horse; being an air in which his fore parts are more raised than in *terra a terra*; but the motion of the horse’s legs is more quick in the latter than in the demi-volte.

DENTITION. Teething.

DESICCATIVE (from *desicco*, to draw away, or dry up), medicines used to dry up, or skin over, old sores.

DETERGENTS, a class of medicines supposed to cleanse and fill up with new flesh all ulcerations and foulnesses. Most applications which stimulate moderately are detergent: for instance, honey, lime-water, ægyptiacum, &c.

DIABÈTES, OR PROFUSE STALING. This disease may be known by an immoderate discharge of pale urine, accompanied with coldness of the skin, staring of the hair, weak pulse, loss of appetite, constant thirst, and general debility.

The causes of the diabetes are those in general which dispose an animal to hydropic affections. Mr. Denny attributes it, in many instances, to bad forage, particularly of oats damaged by salt water.

This, he says, is so very frequent a disease in regiments of cavalry, that he has seen “more than a hundred horses labouring under it at one time.” In these instances, however, the disease can hardly be supposed to have arisen from general debility or any chronic affection, since

we are told, that, though many remedies have been proposed for the cure of this disease, it will always be sufficient to observe the following treatment.

"On the first discovery of the disease give the following ball morning and night:

Alum in powder, 2 drachms.

Armenian bole, half an oz.

Peruvian bark in powder, half oz.

Ginger in powder, 2 drs.

Treacle, enough to make a ball.

"Mashes may be given two or three times daily, to keep the bowels open, and a moderate quantity of lime-water should be administered for drink. Walking exercise should be allowed, and also warm clothing. The skin of the animal should be well rubbed, and particularly the legs.

"When the disease is removed, the horse's food should be of the best quality."

If the chronic diabetes of the horse yield to this treatment, we certainly have no reason to consider it a formidable malady. That veteran of his time, Gibson, however, represents the "true diabetes," as a disease difficult of cure, and for this simple and convincing reason, that it is the result of debility from "long-continued sickness, old surfeits, or the effect of hard riding or hard labour," accompanied with poor diet.

DIAMOND was esteemed for some years the speediest and best bottomed horse in the kingdom. He was foaled in 1792; bred by Mr. Dawson; got by High-flyer out of the dam of Sparkler, and was own brother to Screveton. At three years old, he repeatedly ran in handsome with some of the first horses, and was within a length of winning the Derby at Epsom when twelve started, but did no more than receive 50 guineas forfeit from Lark at the second Newmarket meeting of the year 1795. First spring meeting, 1796, he won the Jockey Stakes of 100 guineas each, six subscribers. In the July meeting of the same year he walked over for a sweepstakes of 200 guineas each, seven subscribers. In 1797, when Mr. Cookson's, he won the King's hundred at Newcastle, and a £50 plate the next day at the same place; £50 at York; the 50 guineas for all ages at Newmarket, beating Yeoman, Play or Pay, Aimator, and others. The next day he won the King's hundred guineas, beating the famous Hermione and Vixen. In 1798 he beat Moorcock, over the Beacon Course, for 200 guineas, Monday in the Craven meeting. First spring meeting he won a sweepstakes of 100 guineas each, twelve

subscribers. Second meeting, received a compromise from Lord Clermont's Spoliator. At Oxford he won the gold cup of 100 guineas value, with 50 guineas in specie, beating Stickler, Johnny, Oatlands, and Whip; all excellent runners. The King's hundred at Nottingham; the King's hundred at York; and beat Sir H. T. Vane's Shuttle, four miles over Doncaster for 1000 guineas: the odds eleven to eight upon Shuttle. In 1799 he was beat half a length, the great match, by Hambletonian, over the Beacon Course at Newmarket, for 3000 guineas; the odds five to four upon Hambletonian. More money was sported upon this match, and more company went from the metropolis to see it decided, than ever was known upon any other race in the kingdom.—The next day he won the first class of the Oatlands stakes 50 guineas each (ten subscribers) beating eight of the best horses of the year. First spring meeting he won the King's hundred, beating Grey Pilot, Lounger, and St. George. Second meeting, won the Jockey Club plate, and 50 guineas, beating Stamford and Lounger. In 1800, first spring meeting, he won a subscription £50, beating Stamford, the famous Coriander, and Wrangler. First October meeting he received 250 guineas forfeit from Warter. Second October meeting he beat Hippona over the Beacon Course, 200 guineas. Here ended his career by the death of Mr. Cookson; after which he was sold, and taken to Ireland; where, being engaged by his owner in a match of much magnitude, he was lamed by over-training.

DIAPHRAGM, vulgarly called the midriff or skirt, a muscular substance in a horse, bullock, or other quadruped, which divides the upper cavity, or chest, from the abdomen, or lower belly. It takes its origin from the loins, and is inserted into the lower part of the breast-bone, and the five inferior ribs, by which it makes several points. The middle is a flat tendinous substance, from whence the fleshy fibres begin, and are distributed like rays from a centre to its circumference. When this muscle acts alone, it contracts the breast, and pulls the ribs downwards, by which it assists the muscles of the lower belly in the expulsion of the fæces: but its chief office is in respiration, to which all the muscles of the breast, the intercostals, and those of the lower belly, are more or less subservient.

In all the actions of respiration or breathing, the muscles of the breast have

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the greatest force in men: but in horses, and some other creatures of a prone position, it is evident the diaphragm has also a very great force, which seems to be plain in broken-winded horses; many of which have no other indication but that this is stretched or relaxed in a very extraordinary manner. In such cases, the membranous fibres are for the most part extremely thin, and the tendinous parts, towards their insertions into the ribs, very small and feeble, by which means it loses a great deal of that force and spring that is necessary to its action.

When a horse, or any other animal, receives the air into his lungs, the breast and ribs are distended, which is done by the dilatations of the pectoral muscles, by the extension of the intercostals, viz. the muscles of the ribs, and by the diaphragm, which at that time is drawn out and expanded to its full dimensions, or in proportion to the quantity of air received into the lungs. The muscles of the abdomen act also by their connection with those of the breast and ribs, which we perceive more plainly in quadrupeds than in men, where the lungs are upon a level with the parts of the lower belly. On the other hand, when the air passes out of the lungs, the muscles that draw in or compress the breast, and those that compress the ribs, act alternately with the extensors of the breast and ribs. The diaphragm, which is stretched out in time of inspiration, contracts, and in its centre rises upwards like the bottom of a dish.

DIARRHŒA, otherwise called **LAX**, or **SCOURING**. This disease, in the horse, is distinguished by a frequent discharge of fæces, accompanied with pain, restlessness, and loss of appetite. After the second day the discharge is chiefly mucous, or mixed with small and hard lumps of fæces, covered with an oily matter. Mr. Denny observes, that when the disease has been too long neglected, and that the discharge becomes involuntary, accompanied with coldness of the legs, a fatal termination will generally ensue.

The disease, he says, may arise from debility, mucus irritating the intestines, violent exercise, drinking large quantities of cold water when the body is heated, and, lastly, from worms.

Diarrhœa sometimes occurs after acute diseases, and in such instances frequently proves salutary; but in others, arising from various causes, it ought, if possible, to be removed by medicine. These vary, and require different modes of treatment.

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1. A *critical diarrhœa* is accompanied with debility. Powerful astringents must be avoided, and such gently stimulating medicines only employed as will have a tonic effect in restoring the healthy functions of the intestines. To accomplish this end, Mr. Denny advises that the following ball should be given:

Calomel, 1 drachm.

Aloes, 2 drs.

Cinnamon, 2 drs.

Ginger, 2 drs.

Treacle, enough to make a ball.

Twelve hours after, we are directed to give the following ball, and to repeat it morning and night:

Coriander seeds, half an oz.

Caraway seeds, in powder, half oz.

Ginger, 2 drs.

Rhubarb 2 drs.

Armenian bole, 2 drs.

Treacle, enough to make a ball.

The diet should consist of mashies of oatmeal and bran, or malt, not made too moist: and a handful of bran may be boiled in the water intended for drink, which should be given sparingly.

2. In diarrhœa arising from violent exercise, or from drinking large quantities of water, Mr. Denny says the following methods may be employed. If the horse be valuable, let the following draught be given, and repeated six hours after, if needful.

Cinnamon 2 drs.

Cloves 2 drs.

Ginger in powder 2 drs.

Brandy 4 oz.

Tincture of opium 2 drs.

Gruel, one pint. Mix them.

The horse's body should be well rubbed with flannel, and he should be kept warmly clothed.

An hour after the above mixture, a warm mash may be given. Plenty of good bedding should be allowed, and the stable kept quiet, to favour the animal's rest. If this treatment cannot be complied with, the following mixture may be given every three hours, until the symptoms are relieved.

Caraway seeds bruised 1 oz.

Coriander seeds bruised 1 oz.

Ginger in powder 2 drs.

Gruel, two quarts.

Boil them for eight minutes; then strain, and add

Tincture of opium, 2 drs.

Mix them, and let the whole be given warm.

DIET, such select articles of food as,

when persevered in, are likely either to preserve health, or to assist the operation of medicine in the cure of a disease. Mr. Clark's account of the diet proper for sick horses affords us the following remarks.

He says, it may be observed, that, in some diseases, even of the inflammatory kind, some horses retain their appetite for food in a degree, whilst others, when very sick, refuse every kind of sustenance.—In the former case, it ought to be given in a small quantity at a time, and frequently repeated; it should be of the softest kind, scalded bran, boiled barley, malt, or dry bran, if the horse refuse soft food. When a horse refuses food of every kind, it is too common to force it upon him, by pouring wine sops, &c. down his throat, under the apprehension that the horse will die for want of nourishment.—This, however, is not the case: if the animal loaths food, it is a certain sign that he is disordered, and therefore cannot digest it; and the throwing or forcing it into the stomach will serve only to aggravate the disorder under which he labours, by increasing that oppression which already prevails. It is farther to be observed, that the stomach of a horse has not the faculty of vomiting, or even belching up wind by the mouth, which, in such cases, might give relief. If a horse will drink water freely, Mr. Clark considers that the best medicine in such a situation, as it dilutes the contents of the stomach, and thus affords an easier passage for them into the intestines. For these reasons, he insists, that no food whatever should be forced on sick horses; neither should they even be tempted with oats, or other relishing food, as it is by no means proper for them in such a situation, although they should seem disposed to take it, which they frequently will by way of change.

If, however, the existence of the animal, or his recovery, seem to be endangered by a continued rejection of food, it should be remembered that art furnishes us with another resource to support him, namely, by clysters. That nourishment may be conveyed to an animal body by this means, is well known: (see *CLYSTER*). After the intestines have been emptied of excrement, by clysters of warm water, or of very thin water-gruel, in which a handful of common salt, or a few ounces of Glauber's salt, have been dissolved, nourishing clysters, composed of two or three quarts of thick water-gruel, may then be injected, and repeated as often as

may be thought necessary. There is, in fact, no danger of a horse's suffering from the want of nourishment by the mouth in a fever; but there is great danger to be apprehended from its being forced on him, when the stomach cannot digest it. After the great intestines have been thoroughly emptied of the hardened excrements by clysters, the contents of the stomach will find an easy passage into the smaller ones. The horse then naturally craves fresh aliment; but, when this takes place, there will be danger in indulging him with too much at once; and this should by all means be guarded against.

DIGESTION, in the animal economy, is the dissolution or separation of the aliments into such minute parts as are fit to enter the lacteal vessels, and circulate with the mass of blood; or it is the simple breaking of the cohesion of all the little molecule which compose the substances men and animals feed upon.—Now the principal agents employed in this action are, first, the saliva, the juice of the glands in the stomach, and the liquors drank, whose chief property is to soften the aliment, as they are fluids which easily enter the pores of most bodies, and, swelling them, break their most intimate cohesions. And how prodigious a force fluids acting in such a manner have, may be learned from the force that water, with which a rope is wetted, has to raise a weight fastened to and sustained at one end of it; and this force is much augmented by the impetus which the heat of the stomach gives to the particles of the fluid: nor does this heat promote digestion only thus, but likewise by rarifying the air contained in the pores of the food, which helps to burst its parts asunder.—And, therefore, such liquors as are most fluid, or whose particles have the least viscosity, are most proper for digestion, because they can most easily insinuate themselves into the pores of the aliments; and, of all others, water, the almost universal beverage of created beings, seems to be the fittest for this use. Aromatic substances, and indeed the whole class of stimulants employed as medicine, seem to help digestion, as they excite the coats of the stomach to a stronger contraction; and, therefore, when they are duly diluted, they may not only be useful, but occasionally requisite. When the food is thus prepared, its parts are seen separated from one another, and mingled with the liquors in the stomach, from whence it is

propelled into the duodenum, where it mixes with the pancreatic juice and bile from the liver. The chyle is thence absorbed, and carried into the circulation by means of the lacteal vessels, whose extremities open into the intestinal canal for that purpose. Digestion is performed under different circumstances according to the peculiarity of structure of the digestive organs in different animals, and of the substances on which they are destined by nature to feed.

DIGESTIVES, are such unguents, balsams, or other particular preparations, as, being applied to wounds, tend to cleanse, fill them with healthy granulations, and promote the discharge of a laudable matter. Of this class are basilicon, and such other salves as contain the turpentine or stimulating gums. The following formulæ are given by Mr. Denny, a late veterinary writer.

DIGESTIVE OINTMENT.

Take of Olive oil, one pint.

Yellow wax, one pound.

Yellow resin, one pound.

Common turpentine, half a lb.

Melt the wax and resin with the oil over a slow fire; then take them off, add the turpentine, and strain the mixture while it remains hot.

GREEN DIGESTIVE.

Take of Digestive ointment, 8 oz.

Olive oil 3 oz.

Verdigrease powdered 1 oz.

Melt them together.

Many other recipes might be given, but these are as effectual as any.

DIOMED was in great repute as a racer, and afterwards as a stallion at ten guineas a mare. He was bred by Sir C. BUNBURY; got by Florizel; dam by Spectator, and grand-dam by Blank; was foaled in 1777, and proved himself an equal runner with the best horses of his time. As a stallion, he has propagated some of the finest stock in the kingdom. Diomed is the sire of Anthony, Charlotte, Grey Diomed, Lais, Mademoiselle, Playfellow, Quetlavaca, Sir Cecil, Whiskers, Montezuma, Glaucus, Speculator, Champion, Little Pickle, Michael, Monkey, Young Grey Diomed, Snip, Tom, Robin Grey, Dalham, Gautimozin, Habakkuk, Adela, Cædar, Switch, Greyhound, Laurentina, Poplar, Wrangler, and Egham; all considered *winners*; exclusive of many others who won matches and sweepstakes, (as colts and fillies) but were never named.

DISEASE, that state of an animal in which there is such an alteration of the

chemical properties of the fluids or solids, or of their organization, or of the action of the moving power, as to produce an inability or difficulty of performing the functions of the whole or any part of the system, or pain, or a preternatural evacuation. Diseases are either general, idiopathic or primary, local, sympathetic, or symptomatic; and it is necessary to a right treatment of the diseases of animals, that the veterinary practitioner should have clear ideas as to these points before he attempts to apply his remedies.

The general management of horses, when sick, is very judiciously treated of by Mr. Clark, of Edinburgh. He observes, that the diseases to which horses are liable have a great analogy to those of the human body: at the same time that they are almost as numerous.

He considers a question which naturally occurs, viz. how it happens that horses are so liable to such a numerous train of diseases more than other animals of the brute creation? The answer is found in their artificial state of existence: they are more domesticated than other animals, the dog only excepted; and even the latter is left more at liberty than the former. The horse, in his natural state, affords no instances of disease; neither is it found that horses are liable to diseases when left to run wild in different parts of Britain. Nay, it is likewise a fact, that young horses are exempt from disease while running at liberty in a country somewhat distant from towns or villages. They seem, even there, to enjoy a perfect state of health, till they are taken into stables, and come more immediately under the direction of man; it is then that this great change seems to take place in their constitutions. Hence it may be justly inferred, that their proneness to disease arises solely from the treatment they are subjected to, from the musty, close, hot, foul-aired, damp stables, &c. they are confined in; from a sort of food, not, strictly speaking, natural to them; from other errors in their diet, drink, &c.; from the want of free air and exercise, or from the excess of the latter; from the sudden transitions they are compelled to undergo, from heat to cold, and from cold to heat; from suffering them to drink cold water when over-heated; neglect of proper friction or dressing, &c. &c.

"On considering the variety of diseases to which horses are liable in a domesticated state," says Mr. Clark, "it is surprising what affinity there is in the symptoms

attending each of them, with those which take place in the human body in the like situation; insomuch that, if the symptoms attending any one of the diseases to which horses are liable were faithfully related to a physician, although he never saw a sick horse, yet he could from thence name the disease under which the horse laboured at the time. From these, and a variety of other arguments which might be offered, it will be obvious, that the cure of the diseases in horses must depend upon the same principles as those of the human body, and that the prevention of diseases in the former must likewise depend on obviating the causes which dispose and render them liable to these diseases."

DISTANCE. A sporting term appertaining solely to the turf. It is a length of two hundred and forty yards (actual measurement) from the winning-post of every race-course in the kingdom; precisely at which spot is fixed a post corresponding with others, but having a gallery annexed capable of holding three or four persons, which is called the *distance-post*. In this gallery, as well as in the gallery of the winning-post, before the horses start each heat, is stationed a person holding a flag; during the time the horses are running, each flag is suspended from the front of the gallery to which it has been appropriated; but immediately upon the first horse passing the holder of the flag in the gallery of the winning-post, he strikes the flag; at the very moment of his doing which, the holder of the flag in the gallery of the distance post strikes his also, in confirmation that the heat is decided; and such horse or horses (running for the plate) as may not have passed the distance-post before the flag is struck, is then deemed a distanced horse, and disqualified from starting again for the same plate or prize. A horse running on the wrong side of a post, the rider not bringing his proper and full weight to scale after the heat, or dismounting without first riding his horse up to the side of the scale, and weighing, are also deemed distanced horses, and not permitted to start again.

DISTEMPER, a word used by the old writers synonymously with disease; but, with the moderns, rather confined to those morbid affections that are contagious.—It is often used vaguely to describe a sickness or indisposition the nature of which is not understood. Thus we hear of the "distemper" in cows, dogs, &c.—

Mr. Ryder, a late veterinary writer, has given this name to a contagious affection in the horse, which he describes in the following terms:

"In England," says he, "horses are extremely subject to receive injury from the sudden changes which take place in the temperature of the atmosphere, particularly during the spring and autumn quarters; the moisture of the air at these periods, combined with the heat, is very apt to produce inflammation of the mucous membranes, coughs, and sometimes inflammation of the lungs. When this inflammation and cough is attended with a discharge of matter from the nostrils, it constitutes a disease which is called the distemper, for which every farrier thinks that he has an infallible antidote; but is frequently found that a number of valuable horses fall victims to this disease, which we conceive may be owing to the error of treatment.

"The principal symptoms observable in the distemper are, first, a slight inflammation of the top of the throat, attended with a cough, which becomes more frequent and violent, particularly when the patient attempts to swallow his food, the action of the heart and arteries is increased, and the pulse is more quick and hard, with some degree of fever; the tongue is very hot and white, but not always dry, being sometimes covered with tough mucus; and, when difficulty of breathing is joined to these symptoms, we have great reason to apprehend that the lungs are affected.

"There is very little appearance of any enlargement of the external glands about the neck, or under the jaw, as in strangles; the inflammation being principally confined to the throat, windpipe, and adjacent parts, which appear much tumified and sore.

"Where no medicines have been given, or any operation used, this disease terminates by a critical purging, but more frequently by a large secretion of matter from the nostrils. The method of practice we have found most effectual for the cure of the distemper is as follows:

"Frequent bleeding in small quantities, about three pints at a time, and a hair bag, containing a large mash, nearly scalding hot, should be fastened on the head, and round the nostrils, so as the patient may inhale the whole of the hot steam; and the mash should be changed four or five times a-day. This will relax the inflammation of the throat, and pro-

mote a more free discharge of matter from the nostrils.

"If there be much fever, which is generally the case, half an ounce of nitre, dissolved in two quarts of water in which bran has been steeped, may be given, a little warm, at one time, or used as his ordinary drink. And if there be any difficulty in his breathing, the bleeding may be increased to three or four quarts the first time, and afterwards in small quantities, or as symptoms may direct.

"The horse should be moderately warm clothed, and should frequently be gently exercised; and if oats are given, they should be bruised, and steeped in hot water.

"In the place of hay, fresh grass, where it can be procured, will be found the best diet, as it has a tendency to keep the body cool, and gently open the intestines."

DIURETICS. Under this head are included those medicines whose most remarkable properties appear in their increasing the discharge by urine, or which are said to remove obstructions in the urinary passages.

They are supposed to lubricate or soften the fibres which compose the urinary glands and canals, and, by their attenuating and detersive properties, rarefy and thin viscous or thick humours, so as to render them capable of passing through these canals, which they could not do in a viscid state; but, whichever of these ways they operate, it is well known that they are of singular use in promoting the discharge by urine, by which diseases are not only frequently carried off, but actually cured with expedition; and, in many cases where purging medicines are prescribed, diuretics would be much more preferable, as they may be used with greater safety, more especially when it is considered that the chief effects of either of these prescriptions tend only to lessen the quantity of fluids in the body. Hence it will appear how salutary and beneficial medicines of this kind are to horses in a great variety of cases, but more particularly in those where any obstruction has taken place in the urinary vessels, attended with difficulty in staling—a complaint which horses are very subject to, owing to a variety of circumstances. From this consideration, it will likewise be obvious how necessary it is to allow horses, which are upon a journey, or travelling long stages, to stand still at times, in order to let them make water: from a neglect

of this kind, many horses are killed; for, when the bladder has been over full, and distended beyond its natural dimensions, it turns paralytic, and loses the power of contracting itself again for some time, so as to expel the urine immediately; hence dangerous symptoms ensue, which, if not speedily relieved, prove fatal. Besides, when the urine is too long retained in the bladder, it is not only re-absorbed or taken up again into the mass of fluids, but, by stagnating, it becomes thicker, the more watery parts being carried off first by absorption, the more gross and earthy parts remaining behind, and the tendency which these particles have to congregate may promote the formation of gravel, &c.

Diuretic medicines are most frequently administered in the form of balls; but, in some circumstances, they may be given in the form of powders in the food. Nitre is not only an alterative, but it acts as a powerful diuretic to horses, and, in some cases, may be given from one to four ounces a day, according as circumstances may require.

To coarse horses, or those of robust strong constitutions, from two to four ounces of yellow rosin in powder may be put into their food, and repeated for two or three times, at proper intervals, according as it is found to operate in cases of swelled legs, greasy heels, &c.; and it ought always to be observed, that, when diuretic medicines are given, the horse should be indulged with plenty of water to drink during the time they are operating.

The cases which require diuretic medicines, and which occur most frequently, are when any difficulty is observed in a horse's making water, or when liable to frequent attacks of the strangury, or suppression of urine, when the urine appears too thick, turbid, or discoloured, whether it be red, yellow, or black; when there are symptoms of any latent disorder, attended with a dulness or heaviness in the horse's looks, a staring dusty-like coat, local swellings on any part of the body, as on the belly, sheath, or legs; running sores about the latter, commonly called the grease, &c.; in cases where there are eruptions or pustules on the surface of the skin, or when the horse appears itchy, and frequently rubbing himself against the stall, &c.; or in rubbing one leg against the other, although no eruption appears on the skin; in running thrushes, cracks, or ulcers about the heels; in baldness, or losing the hair on different parts of the

body; in most cases where a course of diuretic medicines are prescribed, bleeding will be necessary before they are given. Regular exercise must by no means be omitted, even during the time they are operating. The use of diuretics should not be continued too long at one time, as they weaken the body considerably; and, as soon as the disorder for which they were given is removed or abated, they should be abandoned.

DIURETIC BALL.

Take of Yellow rosin, half-an-ounce:

Linseed powder, three drachms:

Sweet spirit of nitre, sufficient to make the ball.

DIVERS, as they are termed, consist of the scoter, scaup, golden eye, morillon, and others of the duck kind, and are not meant to particularly signify those birds to which naturalists have given the name of divers.

They vary very much both in plumage and size, some weighing two pounds and a half, and others a pound less. In hard weather they frequent the shores and the tide rivers in great plenty, and are almost always at that season fat and in good condition; they do not fly in such large flocks as many of the duck species, and usually close to the surface of the water, and bear very hard blows from the shot without dropping, unless struck upon the head or wing.

The day seems to be spent by these birds between diving and flying to small distances over the water, which they do so low as often to dip their legs in it: they swallow their food whole, and soon digest the shells, which are found crumbled to powder among their excrements. They have been kept tame for some time, and will feed on soaked bread. The flesh tastes fishy in the extreme, and from this cause is allowed by the Roman Catholics to be eaten on fast days and in lent; and, indeed, must be a sufficient mortification.

DOCKING, the operation of cutting off a horse's tail. The manner of performing it has long been this: "First, feel with your finger and thumb, till you have found the third joint from the setting-on of the horse's tail, then raise up all the hair, and turn it backwards; then taking a very small cord, and wrapping it about that joint, and pulling it as tight as possible, take a piece of wood, with the end smooth and even, and just the height of the horse's tail. Set it between the horse's hinder legs, having first trammelled all his four legs, so that he cannot stir. Lay

his tail upon the wood, and having a very sharp strong knife made for the purpose, set the edge of it as near as possible between the fourth and fifth joints. Then, with a large smith's hammer, strike the back of the knife, and cut the tail off. If any blood issue, the cord is not tight enough, and should be drawn straiter: but if no blood follow, take a red-hot iron, made of a round form, of the full compass of flesh of the horse's tail, and with this sear the flesh till it be encrusted, so that the blood cannot break out. Then loose the cord; and, after two or three days, when the sore begins to discharge, anoint it with hog's grease and turpentine till it be healed."

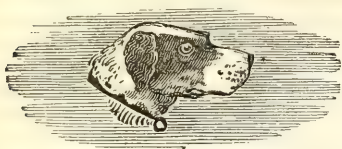
The following improvement is suggested by Mr. John Lawrence.

"I had heard," says that writer, "of many accidents, some of them fatal, from horses being docked at too late a period, and by bungling blacksmiths; and indeed I had seen several operations of the kind which made me sick. It occurred to me, that colts ought to be docked early, whilst the bones of the tail are tender and gristley; and this operation I ever afterwards performed upon my own horse myself, with a good sharp kitchen-knife, with all possible success, and which I wish to recommend as a general custom. The two last I docked were, one about three months, the other about three weeks, old; the one got by a cart, the other by a bred, horse.—These colts were perfectly tame and handy (a state in which I always choose to have them); and, whilst eating a few carrots, they suffered me to tie their hair up *secundum artem*, and to make the stroke, which curtailed them in an instant, and with so little pain, that they scarcely left their carrots. The usual quantity taken off agrees in length with the width of a man's hand; but perhaps it ought to be rather more, from the consideration of its being done so early. The bred colt was so indifferent about the matter, that he suffered me, about half an hour afterwards, to lay hold of his tail again, and make a ligature to stop the blood. If a flux of blood be not desired, a ligature may be made previous to the operation; but, in case of plethora, dullness, or heaviness about the head and eyes, it may be presumed that bleeding will benefit the colt, and the wound may be entirely neglected. If any application be thought necessary, nothing is so proper as French brandy. No twitching, trammelling, searing with hot irons, nor

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any of the Vulcanian apparatus, is here required; and, what will weigh more than all the rest with certain of my readers—no farrier's bill."

DOE. Female of the fallow deer.



DOG. Independent of the beauty of his form, his vivacity, force, and swiftness, the dog is possessed of all those internal qualifications that can conciliate the affections of man, and make the tyrant a protector. A natural share of courage, an angry and ferocious disposition, render the dog, in its savage state, a formidable enemy to all other animals: but these readily give way to very different qualities in the domestic dog, whose only ambition seems the desire to please: he is seen to come crouching along to lay his force, his courage, and all his useful talents, at the feet of his master; he waits his orders, to which he pays implicit obedience: he consults his looks, and a single glance is sufficient to put him in motion; he is more faithful even than the most boasted among men; he is constant in his affections, friendly without interest, and grateful for the slightest favours; much more mindful of benefits received than injuries offered; he is not driven off by unkindness; he still continues humble, submissive, and imploring; his only hope, to be serviceable—his only terror, to displease; he licks the hand that has been just lifted to strike him, and at last disarms resentment by submissive perseverance.

More docile than man, more obedient than any other animal, he is not only instructed in a short time, but he also conforms to the dispositions and manners of those who command him. He takes his tone from the house he inhabits; like the rest of the domestics, he is disdainful among the great, and churlish among clowns. Always assiduous in serving his master, and only a friend to his friends, he is indifferent to all the rest, and declares himself openly against such as seem to be dependant like himself. He knows a beggar by his clothes, by his voice, or by his gestures, and forbids his approach. When at night the guard of the house is committed to his care, he seems proud of

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the charge: he continues a watchful sentinel, he goes his rounds, scents strangers at a distance, and gives them warning of his being on duty.

The dog, thus useful in himself, taken into participation of empire, exerts a degree of superiority over all animals that require human protection. The flock and the herd obey his voice more readily even than that of the shepherd or the herdsman; he conducts them, guards them, keeps them from capriciously seeking danger, and their enemies he considers his own. Nor is he less useful in the pursuit; when the sound of the horn, or the voice of the huntsman, calls him to the field, he testifies his pleasure by every little art, and pursues with perseverance those animals which, when taken, he must not expect to divide. The desire of hunting is indeed natural to him, as well as to his master, since war and the chase are the only employments of savages. All animals that live upon flesh, hunt by nature; the lion and the tiger, whose force is so great that they are sure to conquer, hunt alone and without art; the wolf, the fox, and the wild dog, hunt in packs, assist each other, and partake the spoil. But when education has perfected this talent in the domestic dog—when he has been taught by man to repress his ardour, to measure his motions, and not to exhaust his force by too sudden an exertion of it, he then hunts with method, and always with success.

As the dog is of the most complying disposition, so also it is the most susceptible of change in its form; the varieties of this animal being too many for even the most careful describer to mention. Climate, food, and education, all make strong impressions upon the animal, and produce alterations in its shape, its colour, its hair, its size, and in every thing but its nature. The same dog, taken from one climate and brought to another, seems to become another animal; but different breeds are as much separated to all appearance, as any two animals the most distinct in nature. Nothing appears to continue constant with them but their internal conformation; different in the figure of the body, in the length of the nose, in the shape of the head, in the length and direction of the ears and tail, in the colour, the quality, and the quantity of the hair; in short, different in every thing but that make of the parts which serves to continue the species, and keeps the animal distinct from all others. It is this peculiar

conformation, this power of producing an animal that can reproduce, that marks the kind, and approximates forms, that at first sight appear in no degree calculated for conjunction.

From this single consideration, therefore, we may at once pronounce all dogs to be of one kind; but which of them is the original of all the rest, which of them is the savage dog from whence such a variety of descendants have come down, is no easy matter to determine. We may easily, indeed, observe, that all those animals which are under the influence of man, are subject to great variations. Such as have been sufficiently independent, so as to choose their own climate, their own nourishment, and to pursue their own habits, preserve their original marks of nature, without much deviation; and it is probable, that the first of these is even at this day very well represented in their descendants. But such as man has subdued, transported from one climate to another, controlled in their manner of living, and their food, have most probably been changed also in their forms: the dog has felt these alterations more strongly than any other of the domestic kinds; for, living more like man, he may thus be said to live more irregularly also, and, consequently, must have felt all those changes that such variety would naturally produce. Some other causes, also, may be assigned for this variety in the species of the dog: as he is perpetually under the eye of his master, when accident has caused any singularity in his productions, man uses all his art to continue this peculiarity unchanged—either by breeding from such as had those singularities, or by destroying such as happened to want them; besides, as the dog produces much more frequently than some other animals, and lives a shorter time, so the chance for its varieties will be offered in greater proportion.

But which is the original animal, and which is the artificial or accidental variety, is a question which, as was said, is not easily resolved. If the internal structure of dogs of different sorts be compared with each other, it will be found, except in point of size, that in this respect they are exactly the same. This, therefore, affords no criterion. If other animals be compared with the dog internally, the wolf and the fox will be found to have the most perfect resemblance; in fact, there is no perceptible difference: it is probable, therefore, that the dog which most nearly resembles the wolf or the fox externally, is

the original animal of its kind; for it is natural to suppose, that as the dog exactly resembles them internally, so he may be near them in external resemblance also, except where art or accident has altered his form. This being supposed, if we look among the number of varieties to be found in the dog, we shall not find one so like the wolf or the fox, as that which is called the shepherd's dog. This is that dog with long, coarse hair, on all parts except the nose, pricked ears, and a long nose, which is common enough among us, and receives his name from being principally used in guarding and attending on sheep. This seems to be the primitive animal of his kind; and we shall be still more confirmed in this opinion, if we attend to the different characters which climate produces in the animal, and the different races of dogs which are propagated in every country: and, in the first place, if we examine those countries which are still savage, or but half civilized, where it is most probable the dog, like his master, has received but few impressions from art, we shall find the shepherd's dog, or one very like him, still prevailing amongst them. The dogs that have run wild in America, and in Congo, approach this form. The dogs of Siberia, Lapland, and Iceland, of the Cape of Good Hope, Madagascar, Madura, Calicut, and Malabar, have all a long nose, pricked ears, and resemble the shepherd's dog very nearly. In Guinea, the dog very speedily takes this form; for at the second or third generation the animal forgets to bark, his ears and his tail become pointed, and his hair drops off, while a coarser, thinner kind, comes in the place. This sort of dog is likewise to be found in the temperate climates in great abundance, particularly among those who, preferring usefulness to beauty, employ an animal that requires very little instruction to be serviceable. Notwithstanding this creature's deformity, his melancholy and savage air, he is superior to all the rest of his kind in instinct, and, without any teaching, naturally takes to tending flocks, with an assiduity and vigilance that at once astonish and relieve his master.

In more polished and civilized places, the dog seems to partake of the universal refinement, and, like man, becomes more beautiful, more majestic, and more capable of assuming an education foreign to his nature. The dogs of Albany, of Greece, of Denmark, and of Ireland, are larger and stronger than those of any other country. In France, Germany, Spain,

and Italy, the dogs are of various kinds, like the men; and this variety seems formed by crossing the breed of such as are imported from various climes.

The shepherd's dog may, therefore, be considered as the primitive stock from whence these varieties are all derived. He makes the stem of that genealogical tree which has branched out into every part of the world. This animal still continues pretty nearly in its original state among the poor in temperate climates; in the colder regions, he grows less, and more ugly among the Laplanders; but becomes more perfect in Iceland, Russia, and Siberia, where the climate is less rigorous, and the people more civilized. Whatever differences there may be among the dogs of these countries, they are not very considerable, as they have all straight ears, long and thick hair, a savage aspect, and do not bark either so often or so loud as dogs of the more cultivated kind.

The shepherd's dog transported into the temperate climates, and among people entirely civilized, such as England, France, and Germany, will be divested of his savage air, his pricked ears, his rough, long and thick hair, and from the single influence of climate and food alone, will become either a *matin*, a *mastiff*, or a *hound*. These three seem the immediate descendants of the former; and from them the other varieties are produced."

How far this last assertion of Buffon, that the shepherd's dog, "from the single influence of climate and food alone, will become either a *matin*, a *mastiff*, or a *hound*," may be founded on fact, I am unable to decide; but I am much inclined to doubt it. All animals feel the influence of climate; and we have abundant proof that the very same species, even in latitudes not very widely dissimilar, exhibit marks of the difference of their situation: the lion, for instance, which is never found so high as the temperate latitudes (unless in a state of captivity), to whose very existence a burning sun, or a great degree of heat, seems indispensable, and whose form and manner appear little susceptible of change, is, nevertheless, marked like a graduated scale with the varied effect of latitude. The lion of Mount Atlas is a small, dark, tawny-coloured animal; and, as he approaches the torrid zone, his colour not only becomes much lighter, but he increases in size, strength, and fierceness. The difference is still more manifest between the Esquimaux and the inhabitants of more southern latitudes. On

this principle of reasoning, therefore, it requires no great strength of imagination to suppose that the wild dog assumes various forms and colours, according to situation; and that "the influence of climate and food alone" was not sufficient to produce those varieties above mentioned, but that the natives of remote countries were also resorted to for this purpose.

It is a generally-received opinion, that the wolf and dog, as well as the fox and the dog, will engender, and that the offspring of such a conjunction is capable of procreation; which, if true, would clearly prove that these animals are merely accidental ramifications of the same stock: but I am almost equally inclined to doubt on this head; nor would any thing short of ocular demonstration remove my infidelity upon a subject, which, however, first appearances may seem to favour it, I am perfectly convinced has in general been inconsiderately asserted, and handed from one to another without experiment or reflection.

All the endeavours of M. Buffon to make them engender as he assures us, were ineffectual. For this purpose, he bred up a young wolf, taken in the woods, at two months old, with a *matin* dog of the same age. They were shut up together without any other, in a large yard, where they had a shelter for retiring. They neither of them knew any other individual of their kind, nor even any other man but he who had the charge of feeding them. In this manner they were kept for three years; still with the same attention, and without constraining or tying them up. During the first year the young animals played with each other continually, and seemed to love each other very much. In the second year, they began to dispute about their victuals, although they were given more than they could use. The quarrel always began on the wolf's side. They were always brought their food, which consisted of flesh and bones, upon a large wooden platter, which was laid on the ground. Just as it was put down, the wolf, instead of falling on the meat, began driving off the dog; and took the platter in its teeth so expertly, that it let nothing of what it contained fall upon the ground, and in this manner carried it off; but as the wolf could not entirely escape, it was frequently seen to run with the platter round the yard five or six times, still carrying it in a position that none of its contents could fall. In this manner it would continue running, only now and

then stopping to take breath, until the dog came up, when the wolf would leave the victuals to attack him. The dog, however, was the stronger of the two, but as it was more gentle, in order to secure him from the wolf's attack, he had a collar put round his neck. In the third year, the quarrels of these ill-paired associates were more vehement, and their combats more frequent; the wolf, therefore, had a collar put round its neck, as well as the dog, which began to be more fierce and unmerciful. During the two first years, neither seemed to testify the least tendency towards engendering, and it was not till the end of the third, that the wolf, which was the female, shewed the natural desire, but without abating either in its fierceness or its obstinacy. This appetite rather increased than repressed their mutual animosity; they became every day more untractable and ferocious, and nothing was heard between them but the sounds of rage and resentment. They both, in less than three weeks, became remarkably lean, without ever approaching each other, but to combat. At length, their quarrels became so desperate, that the dog killed the wolf, which was become more weak and feeble; and he was soon after himself obliged to be killed, for, upon being set at liberty, he instantly flew upon every animal he met, fowls, dogs, and even men themselves, not escaping his savage fury.

The same experiment was tried upon foxes, taken young, but with no better success; they were never found to engender with dogs; and our learned naturalist seems to be of opinion, that their natures are too opposite ever to provoke mutual desire.

A young dog shudders at the sight of a wolf; he even shuns his scent, which, though unknown, is so repugnant to his nature, that he comes trembling to seek protection near his master. A dog that is stronger, and knows his strength, bristles up at the sight, testifies his animosity, attacks him with courage, endeavours to put him to flight, and does all in his power to rid himself of a presence that is hateful to him. They never meet without either flying or fighting; fighting for life and death, and without mercy on either side. If the wolf is the stronger, he tears and devours his prey: the dog, on the contrary, is more generous, and contents himself with his victory; he does not seem to think that *the body of a dead enemy smells well*; he leaves him where

he falls, to serve as food for birds of prey, or for other wolves, since they devour each other; and when one wolf happens to be desperately wounded, the rest track him by his blood, and are sure to shew him no mercy.

The dog, even in his savage state, is not cruel; he is easily tamed, and continues firmly attached to his master. The wolf, when taken young, becomes tame, but never has any attachment: nature is stronger in him than education; he resumes with age, his natural dispositions, and returns as soon as he can to the woods from whence he was taken. Dogs, even of the dullest kinds, seek the company of other animals; they are naturally disposed to follow and accompany other creatures beside themselves; and even by instinct, without any education, take to the care of flocks and herds. The wolf, on the contrary, is the enemy of all society; he does not even keep much company with those of his kind. When they are seen in packs together, it is not to be considered as a peaceful society, but a combination for war; they testify their hostile intentions by their loud howlings, and by their fierceness, discover a project for attacking some great animal, such as a stag or bull, or to destroy some more redoubtable watch dog. The instant their military expedition is completed their society is at an end; they then part, and each returns in silence to his solitary retreat. There is not even any strong attachment between the male and female: they seek each other only once a year, and remain but a few days together; they always couple in winter; at which time several males are seen following one female, and this association is still more bloody than the former: they dispute most cruelly, growl, bark, fight, and tear each other; and it sometimes happens, that the majority kill the wolf which has been chiefly preferred by the female. It is usual for the she-wolf to fly from them all with him she has chosen; and watches this opportunity when the rest are asleep.

In a state of nature, I am of opinion, the different species of quadrupeds continue faithful to their own particular tribe, and that various kinds never approach each other for the sake of conjunction; nor were the mare and the ass ever known to produce when wild, though in a state of domestication nothing is more common. Where it possible to reduce the wolf or the fox to that degree of subordination or civilization which so super-

lately distinguishes the domestic dog, a race of mongrels might in all probability be obtained. But to accomplish such an object, infinite trouble would be indispensable, as well as perhaps ages of time; for wolves or foxes must be bred in a tame or domestic state before they could be expected to couple with the dog: and, should the tedious experiment eventually be crowned with success, it is very doubtful whether the mongrel race thus produced, would repay the thousandth part of the trouble.

With regard to the dogs of our country in particular, the varieties are very great, and the number every day increasing. And this must happen in a country so open, by commerce, to all others, and where wealth is apt to produce capricious predilection. Here the ugliest and most useless of their kinds will be entertained merely for their singularity; and, being imported only to look at, they will lose even that small degree of sagacity which they possessed in their natural climates. From this importation of foreign, useless dogs, our own native breed is, perhaps, degenerated, and the varieties now to be found in England are much more numerous than they were in the times of Queen Elizabeth, when Doctor Caius attempted their natural history. Some of those he mentions are no longer to be found among us, although many have since been introduced, by no means so serviceable as those which have been suffered to decay.

He divides the whole race into three kinds. The first is the generous kind, which consists of the terrier, the harrier, and the blood-hound; the gaze-hound, the grey-hound, the leymer, and the tumbler; all these are used for hunting. Then the spaniel, the setter, and the water-spaniel or finder, were used for fowling; and the spaniel gentle or lap-dog, for amusement. The second is the farm kind; consisting of the shepherd's dog and the mastiff. And the third is the mongrel kind; consisting of the wappe, the turnspit, and the dancer. To those varieties we may add at present, the bulldog, the Dutch-mastiff, the harlequin, the pointer, and the Dane, with a variety of lap-dogs, which, as they are perfectly useless, may be considered as unworthy of a name.

The blood-hound was a dog of great use, and in high esteem among our ancestors. Its employ was to recover any game that had escaped from the hunter,

or had been killed and stolen out of the forest. But it was still more employed in hunting thieves and robbers by their footsteps.

The land spaniel, which probably had its name from Spain, where it might have acquired the softness of its hair, is well known at present.

DISEASES OF DOGS. It has been shewn that wild animals, reclaimed from a state of nature and domesticated, are susceptible of great change and variety in form, colour and character; and owing, no doubt, to being thus compelled to assume in some degree, an artificial mode of life, they are rendered more liable to disorders. Animals in a state of nature are little subject to disease: and though the wild dog subsists on flesh and carrion, it is more than probable he is never troubled with what is distinguished by the appellation of the *distemper*, or any of that long catalogue of disorders, to which the dog is rendered obnoxious after having become the companion of man. However, thus much may be truly observed, that if a dog be properly fed and exercised, has plenty of good clean water, and his bed kept clean, he will not in general be much troubled with disease; and this rule will be found to obtain more particularly if he be kept in the country.

The Distemper. The distemper frequently attacks a dog before he has attained his first year. As a preliminary observation, it may be remarked, that the same membrane which lines the nostrils, extends down the windpipe into the lungs; and the distemper, in the first instance, may be regarded as an inflammation of this membrane; which, if not timely removed, extends down to the lungs, where suppuration will soon be produced; when the animal's eye will become dull, accompanied by a mucous discharge, a cough, and loss of appetite. As the disease advances, it presents various appearances, but is frequently attended with twitchings about the head, while the animal becomes excessively weak in the loins and hinder extremities; indeed he appears completely emaciated, and smells intolerably. At length, the twitchings assume the appearance of convulsive fits, accompanied with giddiness, which cause the dog to turn round: he has a constant disposition to dung, with obstinate costiveness or incessant purging.

On the first appearance of the symptoms which I have described, I should recommend the dog to be bled very freely,

and his body to be opened with a little castor oil or syrup of buckthorn: this will generally remove the disease altogether, if applied the moment the first symptoms appear. If, however, this treatment should not have the desired effect, and a cough ensues, accompanied with a discharge at the nose, give him from two grains to eight of tartar emetic (according to the age and size of the dog) every other day. When the nervous symptoms ensue, which I have already described, external stimulants (such as sal-ammoniac and oil, equal parts) should be rubbed along the course of the spinal marrow, and tonics given internally, such as bark, &c.

Of the various remedies, the following was given with success to a dog, so afflicted as to be scarcely able to stand:—

Turbeth's mineral, six grains, mixed with sulphur, and divided into three doses, one given every other morning. Let a few days elapse, and repeat the course.

Another:

Calomel, one grain and a half,

Rhubarb, five grains,

given every other day for a week.

Another:

Antimonial powder, sixteen grains,

Powdered fox-glove, one grain,

made into four bolusses with conserve of roses, and one given at night, and another the next morning, for two days.

I have known whitening administered for the distemper, a table-spoonful every morning, with a little opening physic, occasionally.

I have uniformly found a complete cure effected from copious and repeated venesection in the early stage of the distemper, accompanied with a little opening medicine, syrup of buckthorn, for instance. In the kennel of Sir Harry Mainwaring, the distemper generally swept away a third of the young dogs at least. My system of treating the distemper has since been adopted with the most beneficial effect.

The following scientific description of the distemper and its mode of treatment, cannot fail to be highly interesting:

"A little black spaniel, six months old, very fat and playful, gradually became listless and irritable; his eyes suffused with water, his drooping ears, tenesmus, rough coat, dyspnoea, and frequent cough, announced that the disease called the distemper was at hand. In this state he ran about for several days, when the dif-

ficulty of breathing increased. His flanks beat violently, and he shewed signs of feeling great pain when his sides were pressed upon. Soon after, he became slightly convulsed, and, by his continual and melancholy cry, both day and night, proved that he was suffering from severe bodily pain. The convulsions increased, and became incessant; his debility and emaciation were daily more apparent; and at the expiration of three weeks he died.

For four days before his death, he lay in a supine, quiet state, perfectly conscious of what was passing near him; and it was only a few hours previous to his dissolution, that he became comatose, and perfectly insensible. During the whole period of his illness, there was no aberration of mind; he was irritable, snapped at those who approached him, foamed at the mouth, but did not refuse the small quantities of broth, milk, and other liquids, which were occasionally offered him.

Dissection. The carcass was lean, but on opening the abdomen, the omentum, intestines, and other viscera, were loaded with fat. The liver was of a dark dull red colour, congested with blood, the gall bladder distended with greenish bile, the stomach and intestines were discoloured with viscid yellow bile, some of which was contained in the stomach.

The kidneys were free from disease, and the urinary bladder was full of urine.

Thorax or chest—no preternatural adhesions or symptoms of inflammation of the pleura costalis existed. The lungs were highly inflamed, and of a dark brown colour, rendered heavy and solid by the effusion of coagulable lymph. On cutting into their substance, numerous drops of white purulent matter escaped from the bronchiæ, and on a careful examination they were found completely full and choaked up with matter.

The trachea was inflamed, and contained a good deal of pus of the same nature.

The heart and large blood-vessels adjoining were distended with dark, black, coagulated blood; the substance of the heart itself was much inflamed; and a small quantity of serum was observed in the cavities of the pleura and pericardium.

A young fox-hound having died of the distemper, I proceeded to ascertain the causes of his death, and commenced with an examination of the nervous sys-

tem. For this purpose a considerable portion of the cranium was removed, by first sawing through the frontal sinuses transversely, and continuing the instrument laterally and downwards through the occipital bone: the bony processes peculiar to carnivorous animals, which assist in forming the falx major, were taken away, and the brain fairly exposed to view.

The frontal sinuses were filled with a thin white fluid, resembling pus, which flowed out freely from the opening made by the saw.

The dura mater was perfectly healthy.

The veins of the pia mater covering the left hemisphere of the cerebrum, were more dilated with blood than those on the opposite side. The substance of the brain was firm, and bore no appearance of disease; nor was there any alteration in the structure of the ventricles. The origins of all the nerves were clear and distinct. The olfactory pair were extremely large, and looked more like processes of brain than nerves. The pineal gland was present in the form of a small pellucid speck, and was seen in its usual situation at the posterior extremity of the third ventricle.

The cerebellum, the pons varolii, and the medulla oblongata, were healthy; on dividing the latter, a little serum was found in the base of the cranium, and on holding the dog up by the hind legs, about two drachms more issued from the sheath of the spinal marrow.

The lateral and cavernous sinuses were filled with dark purple blood.

Examination of the Spinal Marrow.—An incision being carried from the occipital bone down to the sacrum, the muscles were dissected back on each side; and by several applications of the saw, the medulla was laid bare throughout its whole length. The spinal marrow, narrow at its origin, gradually increased in size as it descended to the joints. The dura mater was very firm, thin, and rather opaque. It could easily be separated from the medulla, which was of a beautiful white colour, consisting of two columns, each again divisible into several others; so that there was no appearance of disease to be discovered in the spinal marrow or its membranes; but as the vertebral veins were traced up the spinal canal, they became turgid and more full of blood, and when they had reached the middle of the cervical vertebra, they were greatly distended, and must by their pressure on the spinal marrow have influenced its functions.

Having now completed the dissection of the brain and spine, the thorax and abdomen became the subjects of inquiry.

The trachea was very large, and contained a purulent fluid; its mucous coat was inflamed and corrugated.

The lungs presented a very peculiar appearance, especially the left, a large portion of which was converted into a substance of a yellowish brown, covered with dark black spots, and divided from the remaining healthy part, which was of a florid red colour, by a complete and distinct line of separation.

The discoloured lobes, on being cut into, were solid, and evidently impervious to the admission of air. The bronchial tubes were full of the same thick white pus noticed in my former dissection, and which exuded in large drops.

The right lung was entirely changed into a dark brown mass. The internal jugular and subclavian veins, together with the venæ cavæ, were distended with blood. The heart was enlarged, and the pericardium drawn tight over it. The left auricle and ventricle contained blood; but the right auricle and ventricle were literally gorged to their utmost extent with dark grumous coagulated blood.—There were no marks of preternatural adhesions or inflammation of the pleura costalis, nor was there more than one ounce of serum within its cavity.

Abdomen.—There was a good deal of viscid yellowish bile in the stomach; its villous coat was inflamed and corrugated.

The liver was of a dark red colour congested with blood.

The gall bladder was full of a greenish bile.

The urinary bladder contained a straw coloured urine.

The kidneys, omentum, and peritoneum, were in a healthy state; but the intestines seemed to have suffered from the acrimony of the bile.

Remarks.—From the preceding dissections it must be evident that the distemper is an inflammatory disorder, more particularly affecting the mucous coats of the bronchial tubes, and that the great congestions of blood found in the heart and other vital organs must arise from the obstruction it meets with in its passage through the lungs. The particular time at which the disorganisation commences must depend on the violence of the symptoms; and it does appear that the disease can be divided into three natural stages :—

1st. The stage of fever and general excitement.

2nd. The deposition of coagulable lymph into the substance of the lungs: and

3rd. The effusion of matter into the bronchial tubes.

In drawing this view of the complaint, the liver is not to be overlooked; and it would seem as if the organ was, by a general irritability of the system, excited to a state of unusual activity, and that thus, by the presence of an increased and vitiated state of the bile, the stomach and bowels were brought into a disordered condition, and their villous coats inflamed.

Upon the epidemic, contagious, or other causes predisposing to the distemper, it is not now my intention to offer any remarks; but I shall proceed to the treatment which appearances after death would indicate.

It is necessary for me to add, that I have no experience of its efficacy, nor do I pretend to say that it will be successful. Indeed the object of this paper is rather to induce those who may have daily opportunities of becoming acquainted with the complaint, by observing its causes, symptoms, and progress, to form an idea of its nature; and, lastly, by the operation of remedies and *frequent dissections*, to arrive at some certain conclusion.

Treatment.—At the commencement of the symptoms, or during the first stage of excitement, the dog should be bled freely, according to his age and strength. After which an emetic of tartarised antimony or ipecacuanha should be administered, and its operation promoted by mild bland fluids; moderate doses of calomel, opium, and antimony, should be given every three or four hours, and the excess of bile removed by occasional doses of castor oil. The dog should be immersed for twenty minutes in a warm bath, rubbed dry, and placed in clean warm straw; the temperature of his apartment should be moderately warm, taking great care to exclude the cold air, which must necessarily irritate the lungs. Having continued this plan for forty-eight hours, a mixture, consisting of nitre, fox-glove, and ipecacuanha, should be given three or four times a day until the urgent symptoms have subsided. Stimulants should never be given but when the animal appears much exhausted, and after the preceding measures have been adopted: a little white wine might then be put into the gruel, which should constitute his

food from the primary attack. When recovering, little more than bread-and-milk or nourishing broths will be necessary.

It occasionally happens that the irritability of the stomach is such that no medicines can be retained. Injections in these cases have been attended with beneficial effects; and therefore a solution of starch with laudanum should be thrown up several times in the course of twenty-four hours: a blister also should be applied to the region of the stomach.

With regard to the treatment of the second and third stages, when the first has been violent and neglected, very little can be expected from medicine. Bleeding would be highly injurious; and calomel, opium, and antimony, combined with expectorants, would most probably offer the greatest prospect of success. Strength should be carefully supported by a nutritious diet, but all strong cordials ought to be avoided.

Although it is likely that the fever accompanying the distemper has a peculiar character, I am decidedly of opinion that there is no specific remedy against this complaint; and it is better to point out the indications of cure, than to enumerate a long list of medicines with their respective doses, the selection of which must depend on the circumstances of each individual case.

RICHARD WILLIAMS, Surgeon."
Aberystwith, June 10, 1825."

I am not aware of any other remedies worth notice, though a great number might be added, if we could give credit to the stories retailed by dealers in dogs, as well as gamekeepers and huntsmen.—Much will be found to depend on good nursing, and particularly to prevent the animal from taking cold.—From what I have witnessed of Blaine's medicine, I should not recommend it.

It is very advisable to inoculate for the distemper. If you can meet with a dog already afflicted, take a little mucus from his nose, and insert it up the nostrils of your whelp, after having prepared him by a dose or two of syrup of buckthorn; if the animal does not take the disease, repeat the operation. By inoculating for the distemper, the disease will be as much less severe, as the inoculated small pox compared to what is called the natural mode of taking it.

A dog rarely, if ever, has the distemper twice; nor does it often attack him after he has attained the age of two years; but frequently makes its appearance before

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the animal has reached his twelfth month. A notion became prevalent a few years back, that by inoculating a dog with the cow pock, the distemper would be prevented.

The Cow Pock.—Dr. Jenner has asserted that by inoculating dogs for the cow pock, a “disease similar to that which is called the dog’s distemper is produced, but in a very slight degree. What is most remarkable, (adds Dr. Jenner) this inoculation renders them afterwards unsusceptible of that affection.” Dr. Jenner is certainly no mean authority: but, having tried the experiment a number of times, from what I have witnessed, I can assert, that unless much more than ordinary pains are taken in the operation, no disease whatever will be produced; and when, at length, pustules have been raised, they have not been attended with symptoms any way resembling what is called the distemper.

The catalogue of dog diseases is extended in some publications to a puzzling length, where the various ramifications or different stages of each disease receive a new name, in direct violation of that clearness and perspicuity so preferable, indeed so essentially requisite, in a statement of cases, many of which are frequently doubtful even to the skilful and experienced. Young dogs are very subject to worms, and appearances thus produced are too often mistaken for other disorders, receive various appellations, and are treated in the most injudicious manner. I have been informed that the following will cure the distemper; but I have never tried it; and am rather sceptical as to the fact:—

One clove of garlic, given every or every other day, or according to the violence of the disorder.

Worms.—Dogs, like human beings, are subject to worm diseases of various kinds. A disorder, generally distinguished by the appellation of *lank madness*, is produced by short thick worms, which occasionally breed in the animal’s stomach and intestines. This, and what is denominated *sleeping madness*, appear to be merely two names for the same disease. When a dog is thus afflicted, he will become lean, though he will feed voraciously; as the disorder increases, his appetite in a great degree forsakes him; his eyes appear dull and drowsy, and he will manifest an almost continual inclination for slumber, without being able, however, to sleep soundly—

DOG

Take of calomel, six grains.

Common soap, two scruples. made into two bolusses, one of which to be given at night, and the other the following morning; after two days, the same to be repeated, and in four days more, give the following:—

Extract of coloquintida, 2 scruples, made into three bolusses, and one given every morning; on the fourth morning, give the animal a table spoonful of syrup of buckthorn. If the worms should not be entirely destroyed, in a little time repeat the course.

Dogs are often troubled with large worms, which, without medicine, are occasionally voided singly or in clusters.— Their existence may be known by the dog’s voracity and leanness. The best remedy is the preceding, though the following may probably answer the purpose:—

Calomel	3 grs.
Jalap	20 grs.

Golden sulphur of antimony 4 grs. mixed up with butter or lard into one dose. Three of these doses to be given—one every other morning.

A table spoonful or two of linseed oil, given the first thing in a morning, will frequently bring away a quantity of worms: but it can never be depended on as an effectual remedy, for the following reason:—upon the linseed oil being swallowed, those worms with which it comes in contact, that are not fastened on the intestines, but loose, as it were, in expectation of food, will be brought away; but such as are fast to the intestines, (and many will be found so situated) stick like leeches, and thus prevent the effects of the oil. There is nothing so effectual as calomel. Calomel administered externally, in tolerable plenty, upon the human subject, will destroy worms in the stomach. If the worms are situated near the anus, the calomel may be so completely absorbed, when taken inwardly, as to lose its effect before it reaches that part; some tobacco smoke blown up the anus (which may be easily done by inserting the thin end of a pipe) will most completely destroy these noxious vermin, and they will be voided, most likely, in prodigious numbers.

The remark which was made on the last article would equally apply in this place, respecting the numerous remedies prescribed for the same disease. What are mentioned throughout are such as will be found to answer the purpose; and to

give a number of doubtful and ineffectual recipes, for the sake of making a long list, or giving a false air of importance to the subject, would be as perplexing to the reader as it would be contemptible and even dishonest, in the writer.

However, for worms, generally speaking, the following may be regarded as a sovereign remedy, and there are few cases which it will not effectually cure—take

Linseed oil, half a pint.

Oil of turpentine, two drachms.

Repeat the dose, if necessary.

Convulsions or Fits.—Complaints of this nature are sometimes caused by an accumulation of worms in the stomach, which in the first stage create giddiness, and end in violent convulsive paroxysms. When the complaint is to be attributed to worms, the animal will have an itching at the nose and fundament, and will sneeze frequently. In this case, the best treatment is what has been already prescribed for worms. When convulsions proceed from other causes, which may be generally known by a wild appearance in the animal's eyes, frothing at the mouth, when labouring under the most violent paroxysms of convulsion, the dog may be recovered by being thrown into the water; perhaps a bucket of water thrown over him might answer the purpose: but this is merely a temporary relief; and to eradicate the disease, recourse must be had to something more effectual. In the first place, the animal should lose a few ounces of blood, (from three to six ounces, according to his size and strength) when the following should be administered:—

Jalap 1 scruple.

Cream of tartar, half a drachm.

Water 1 oz.

mixed; half taken the morning after the dog has been bled; the other half in two hours after, well shaken:—a rowel should afterwards be put in the neck, and kept open for a considerable time: the following should then be given:—

Peruvian bark, half an ounce.

Water, half a pint.

boiled for a few minutes and strained; then add, sweet spirit of nitre, one drachm: a table spoonful to be given every two hours, the animal afterwards to be kept on a mild nourishing diet.

When convulsions arise from indigestion, the following has generally been found efficacious:—from two to eight grains of tartar emetic (according to the age and size of the dog), and in two days after give the following:—

Calomel, six grains.

Barbadoes aloes, half a drachm.

Divide into six doses, and administer one every, or perhaps every other, morning, as you may judge the patient can bear it; when you may give tonics, as recommended under the head *Distemper*.

What is called the *megrim*, or giddiness in the head, is a species of fit, and may be removed by bleeding. The same disease is, by some, denominated *falling madness*, (a ridiculous name, certainly,) from, I suppose, the animal occasionally falling from giddiness. When thus afflicted, the dog will frequently rub his feet against the sides of his mouth, and appear as if he had a bone in his throat. Any of these symptoms will give way to the treatment just described; and where the disorder is not very violent, it may generally be removed by bleeding, which, as it has formed a principal feature for the last few pages, it may not be amiss to say a word or two on the best mode of performing the operation under a distinct head.

Bleeding.—In speaking on this subject, I am not supposing that the sportsman is a member of the medical profession in any of its branches, but sufficiently skilled in anatomy to know a vein from an artery, which is all the knowledge requisite for performing the operation of bleeding a dog. A vein may be distinguished from an artery by its having no pulsation; if an artery of any consequence should be divided, the blood will flow in irregular gushes, it will be difficult to stop, and may cause the death of the dog. However, there is little danger of such an unpleasant circumstance happening, and an ordinary degree of attention is quite sufficient to obviate it. The most convenient and the best place to bleed a dog, is to open a vein (the jugular vein) *longitudinally*, in the side of the neck, round which a cord should be first tied; and if the sportsman is not expert at handling a lancet, he may purchase a fleam at any of the shops where surgical instruments are sold, which, by means of springs, is so contrived, that the greatest bungler need be under no apprehension. Those who sell this instrument will describe the method of using it, which indeed is so obvious at first view, as to render elucidation superfluous in this place.

If, after the vein is opened, the animal should not bleed freely, pressure a little below the orifice will cause the blood to flow. When sufficient blood has been

taken, (eight ounces, if a strong dog) the bleeding will generally subside; should this not be the case, a little fur from a hat will stop it, or the lips of the orifice may be drawn together with a needle and thread.

The vein should be opened *longitudinally*, as I have already observed; as, if opened in a transverse direction, it may be difficult to stop the bleeding, owing to the circumstance of the incision opening every time the dog holds down or stretches out his head.

Caustic or hot iron will stop bleeding, even when an artery is divided; or it may be sewn up.

Cold and Cough.—A cough arises from an irritation of the lungs, and may be produced by a cold or otherwise; it is generally the effect of cold, and may be removed by

Antimonial powder	5 grs.
Calomel	4 grs.

made with honey into two bolusses, and given in the evening for two nights successively.

If a dog should be afflicted with a cough, in the first place examine his throat, in order to ascertain if any pieces of bone are lodged there, as such a circumstance will cause a dog to cough for weeks. If the cough arises from cold, administer a dose or two of syrup of buckthorn.—Should the cough still continue, give tartar emetic, as described under the head *Dis-temper*.

Formica, Scab in the Ears.—A little mercurial ointment rubbed upon the affected parts every two or three days, will very soon effect a cure.

Canker in the Lips.—Rub the affected parts with alum water two or three times a day.

Or, rub with bole ammoniac and burnt alum two or three times a day.

Swellings in general.—See *Inflammation*, p. 224.

Films in the Eye.—Bathe the affected part twice a day with water in which a little vitriol has been dissolved, (the size of a large horse-bean to a pint of spring water) and in a minute or two wash it in clear water.

Or bathe with the following lotion twice a day:—

Sulphate of copper,	one scruple.
Water,	four ounces.

Sprains.—Sprains are painful swellings of the ligaments and tendons of the joints, and are caused by too great exertion of the limbs, of which the tendons become

relaxed. They should be well rubbed with the following twice a day:—

Camphor,	two drachms.
Brandy,	one ounce.

When the camphor is well dissolved, add one ounce of sweet oil, and shake them well together. Should this not have the desired effect, try the following:—

Spirit of hartshorn,	two drs.
Sweet oil,	six drs.

well shaken, and applied as the other.—Give a spoonful or two of syrup of buckthorn.

N. B. As sprains are attended with inflammation, this should be got rid of in the first place by fomenting with warm water four or five times a day, and the following lotion applied:—

Extract of lead,	two ounces.
Water,	one pint.

Should any stiffness remain after the inflammation has totally subsided, apply a blister.

Wounds, and to stop an Effusion of Blood.—The following will be found very effective in wounds:—

Spirit of sal-ammoniac,	opodeldoc,
sweet nitre,	equal parts.
Wine,	half quantity.

Spirit of turpentine,	half quantity.
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If an artery is wounded, it may be known (as before observed) by the blood gushing out, (not flowing regularly) and assuming a florid appearance. If a vein is wounded, the blood will be darker coloured, and flow regularly.

Wounds may be divided into two classes—*incised*, or those cut with a sharp instrument: and *contused*, or those inflicted with any thing blunt or heavy.

Slight wounds require little or no attention; but supposing a serious incised wound, the first operation should be cutting, or rather shaving, the hair from around the wound, when, if the blood continues to flow, it should be stopped by filling the wound with bits of sponge or dry lint; if the wound be in the dog's limbs, a bandage tied very tight just above it will materially assist in stopping the flow of blood, should not the sponge or lint be found sufficient. The edges or lips of the wound should afterwards be stitched, or drawn close together with adhesive plaster cut into slips long enough to extend three or four inches on each side; the number of slips must of course be regulated by the size of the wound: plenty of lint or soft rag should be laid on, over which a roller or bandage must be applied to confine the dressing, which should not

be removed for four or five days. The wound should afterwards be dressed with Turner's cerate, sparingly spread on rag, and the bandage as before, and great caution used not to remove the adhesive plaster till the third or fourth dressing. A table spoonful of syrup of buckthorn may be occasionally given to keep the animal's bowels open; and he must be muzzled, or otherwise so secured as to prevent his tearing away or disturbing the bandage.

Contused wounds are more painful than incised; always swoln, ragged, and not attended with much hæmorrhage or flow of blood: no attempt should be made to bring the edges together, but a cold poultice applied, made with oatmeal and the following lotion:—

Goulard's extract of lead, one drachm,
Vinegar, two ounces,
Water, one pint.

The poultice should extend over the swelled parts surrounding the wound, and be renewed three or four times during the day. When the wound begins to suppurate or discharge, unaccompanied with blood, the cold poultice should be changed for a warm one, consisting of oatmeal and water in which there is a little grease, and renewed three times a day as warm as the dog can bear it. In a few days the matter will be completely discharged, when the wound should be dressed daily with yellow basilicon spread on rag, and a long roller applied tightly over.

N. B. Whenever *fungus* or proud flesh appears, it should be touched with blue stone.

Inflammation.—Inflammation arises from various causes, but is distinguished by the part affected becoming swoln, dry, and hot. A slight degree of inflammation will generally subside without the aid either of medicine or external application. Bleeding in the neck will frequently remove an inflammation—or the application of leeches to the affected part, having previously shaved the hair off. If the swelling or tumour becomes larger, soft, and shining, matter is forming, when warm poultices should be applied, as described under *Contused Wounds*, and the same treatment adopted. When the matter is completely formed (which may be known by the fluctuation of the fluid upon a slight pressure,) if the skin is very thin, a deep opening or incision should be made with a lancet on the prominent part; but if hardness is felt, the tumour must remain till it breaks itself. After the tumour is emptied, care should be taken

that the air does not penetrate, or the wound will be much more difficult to heal.

When a dog's eyes become inflamed, and assume a red and fiery appearance, bleeding will generally relieve him.

Dogs, however, are not very subject to inflammation, and, generally speaking, will be troubled with few diseases, if properly dieted and exercised. Dogs kept in towns are much more subject to disorders than such as are kept in the country. Confinement is always injurious to health.

For the Bite of another Dog.—See the article *Wounds*, &c. page 223.

Sore Feet.—Styptic tincture, or, if this cannot be procured, salt and water. "The most essential point about the dog is a good foot; for, without a good, firm foot, he can never hunt long. I never look at a dog which has a thin, flat, wide, and spread foot; they are not worth twopence.

It has been a constant custom with me to wash my pointers' feet with strong salt and water after the day's sport. I have found my error, and am convinced that it is a wrong practice. I never altered my method until three years ago. A gamekeeper in Suffolk, seeing that a boy was washing my dogs' feet with strong salt and water (his name was Cooper), said to me, 'Sir, I think you do wrong to wash your dogs' feet in salt and water at this early part of the shooting season (it was the first week in September), at this time, Sir, when the ground is uncommonly dry, and as hard as a rock. If you will feel their feet, you will find there is a considerable degree of feverish heat in the dog's feet, from having hunted all the day on hard and dry ground. A dog, Sir, in such weather, should have his feet suppled and comforted. As long as the ground is dry and hard, I always wash my dog's feet with warm soap and water, and clean them well, particularly between the toes and balls of the feet; this comforts his feet, allays the heat, and promotes the circulation in the feet. In the more advanced period of the season, when the ground is very wet, then salt and water may be proper.' I approved much of the reasons he gave; it showed the sense of his practice, and the folly of mine: since that period I have taken his advice."—*General Hanger.*

For extracting Thorns.—Thorns may be generally extracted with the thumb and fore-finger nails; or recourse may be had to the assistance of the pen-knife in the same way as the sportsman would ex-

tract a thorn from his own finger. The dog will frequently perform the operation with his mouth. If the wound festers, the thorn may be squeezed out.

To bring Hair upon a Scalded Part.—Fresh hog's lard rubbed frequently upon the affected part, will re-produce hair; indeed, I am inclined to think that animal fat in general will have the desired effect. Fresh goose-grease, or the fat of fowls, unmixed with salt, will answer the purpose equally well. Vegetable oils are of too dry a nature, and their effects, as applied to the growth of hair, pernicious. Yet there are not wanting quacks who daily advertise the sale of oil for the growth of hair on the human head, and, by way of the strongest possible recommendation, specifically state, that it is extracted from vegetables! This is lamentable; but it is still more so, that such numbers of the unthinking become the dupes of these ignorant pretenders, whose existence is a stigma on the liberality of the public.

To destroy Fleas, Lice, &c.—Take of white arsenic, one drachm,
Water, one gallon,

Soft soap, one quarter of a pound, boiled for ten minutes; then take it off the fire and let it stand to settle; then pour it off into another vessel, leaving about half-a-pint at the bottom, which throw away, and dress with the water.—A certain remedy.

Linseed oil, or Scotch snuff, rubbed well all over the body, is a temporary remedy. A good washing with common soap and water will perhaps answer the purpose.

In hot weather dogs are much troubled with fleas; and if the sportsman is anxious for their comfort, he will find it necessary to use the above several times during the summer. Clean beds, and cleanliness in general, act as preventatives.

To recover the Sense of Smell. When a dog's olfactory organs become affected, it will frequently be found to arise from colds, costiveness, or other causes, which a dose or two of opening physic seldom fails to remove. A little sulphur or syrup of buckthorn will have the desired effect.

For Dogs that have taken Poison.—For all vegetable poisons, vinegar has been supposed to be a specific. At all events, whether vegetable or mineral poison has been swallowed, the sooner it is discharged from the stomach, the better.

Take of sulphate of copper, half-a-drachm
Water, six ounces.

Give two table spoonful every five min-

utes, until effectual vomiting has taken place; when a strong dose of castor oil should be administered, followed by nourishing diet.

Whatever will cause instantaneous vomiting may have the desired effect. If a dog has swallowed poison, and no better remedy happen to be at hand, almost any kind of oil (rancid or otherwise) poured down the throat is advisable. The poison will most likely be either nux vomica, arsenic, or corrosive sublimate; however, let the poison be what it will, the best remedy is the following—

Ipecacuanha, fifteen grains,
Water, two table spoonful, mixed.

Should it not operate in fifteen minutes, repeat the dose.—After the operation—

Take of prepared kali, three drachms,
Water, one ounce.

Give a table spoonful every fifteen minutes, which will most likely produce vomiting and purging. Afterwards nourishing diet.

Antidote for Vegetable Poisons.—M. Drapiez has ascertained, by numerous experiments, that the fruit of the fewillea cordifolia is a powerful antidote against vegetable poisons. He poisoned dogs with rhus toxicodendron, hemlock, and nux vomica. All those that were left to the effects of the poison died; but those to whom the fruit of the fewillea cordifolia was administered recovered completely, after a short illness. M. Drapiez also took two arrows which had been dipped in the juice of manchinele, and slightly wounded with them two young cats. To the one of these he applied a poultice, composed of the fruit of the fewillea cordifolia, while the other was left without any application. The wound of the former speedily healed; while the other, in a short time, fell into convulsions, and died.

It is very difficult, however, to save the life of a dog that has taken poison. Nux vomica is what the base-minded generally use for the purpose. If recourse can be had to the process before described, the moment the animal has swallowed the baneful drug, I should have no doubt of success; but if only a few minutes elapse, the cure is extremely doubtful. I have witnessed several instances, in all of which the animals died, though every exertion was used for their preservation. Perhaps the stomach-pump might be successfully applied.

Sickness, or a Foul Stomach.—A foul stomach proceeds from indigestion; therefore eight or ten grains of tartar emetic

may be very beneficially given, followed, in a day or two, by a purge of syrup of buckthorn.

Dogs are very liable to a foul stomach; but this is more particularly the case with such as are tied up or confined. If you tie a dog to a kennel for a few days, the moment you loose him, he will run in search of grass to eat, the broad blades of which he prefers; this will frequently cause him to vomit: whenever the animal is troubled with sickness or a foul stomach, he will uniformly have recourse to eating grass, though vomiting does not always follow.

A dog never perspires; but whenever he is unwell, his eyes very strongly exhibit the change, are a certain index of the state of his health, and assume a languid, a dull, or a fiery appearance, according to the nature of the disorder with which he is afflicted. The powers of digestion in a dog do not appear to be promoted by exercise. If you take a dog into the field to hunt with a full stomach, he will throw up the contents of it in a few minutes, or at least in a short period. If you suffer him to sleep after a hearty meal, the digestion is rapid and healthy. This may be regarded as a general rule throughout animated nature. Give a dog a good supper on the evening prior to hunting, and the next morning he will require little or nothing. I generally give my dogs a crust of bread in the morning when going out, which, however, they will not always stop to eat, so great is their anxiety for the expected diversion. Little food, and that of a light nature, will be found to answer best upon violent exercise; hence a man walks or labours much better after a breakfast, composed principally of tea or coffee, than after a heavy dinner. Cows, horses, and animals in general, retire to rest after filling their bellies; a full stomach, I have no doubt, is the best to sleep upon; and I therefore differ very widely from those physicians who represent a good supper as injurious to repose.

The Common Mange.—This disorder is very infectious, and originally proceeds from dirty beds, bad food, and filth in general. It has a loathsome, scabby, dirty appearance, somewhat similar to the itch in human beings, and, like that disease, contains animalcula in each of the pustules. It may be cured with the following:

Oil of tar,
Sulphur vivum,
Train oil, of each an equal quantity,
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with which the dog should be well rubbed several times, a day or two elapsing between each rubbing. Sulphur given internally will be of service.

Another:—

Flowers of sulphur, half-an-ounce,

Hog's lard or butter, one ounce,
well mixed, and rubbed completely over the animal twice a day, giving a tea spoonful of the flowers of sulphur every evening in a little molasses. Keep the animal confined alone, and the moment the cure is effected, give him a clean bed.—As the disease is very infectious, without great care, all your dogs will become disordered.

Mercurial ointment rubbed on the parts affected will remove this disease; but it is rather a dangerous remedy, and will kill a weak animal, if not carefully administered:—muzzle the dog.

An infusion of fox-glove leaves, I have reason to believe, will answer the purpose: it is the cleanest remedy; and though I have not had sufficient experience to pronounce its infallibility, I have no hesitation in recommending it:—put a handful of fox-glove leaves into a quart or three-pint jug, pour boiling water upon them; and, when cold, rub the dog every day for three or four days. The dog need not be muzzled—as soon as dressed he will attempt to lick, but will not take a second taste.

The following I have seen successfully used:—

Sulphur, two ounces,

Mercurial ointment, two drachms,

Hog's lard, four ounces,

well mixed: with which rub the dog every other day—three or four dressings will generally be sufficient. Two drachms of aloes, mixed up with the above, will not injure the composition, and will probably prevent the animal licking himself—otherwise, muzzle him. Chlorate of lime, I am informed, will cure the common mange.

The Red Mange. The disorder called the *red mange* does not appear to be nearly allied to what is so well known by the common appellation of *mange*, but to be a species of disease within itself, seated in the skin, and not always infectious amongst dogs lying together, but almost invariably communicated by a bitch to her litter of whelps, particularly if she had it upon her during the time she was in pup. This disorder is most malignant in its effect; the incessant and severe itching, which, from all observation,

seems accompanied by a burning heat, and this too increased by the perpetual biting and scratching of the tortured animal, give such parts of the frame as are severely affected, the appearance of having been scalded by some boiling liquor, with a consequent loss of hair. It is this distinct kind of mange that so constantly baffles dog-doctors and dog-mongers of every description, and reduces them to their *ne plus ultra*, where the fertility of invention can go no further. It is, perhaps, the most deceptive disorder to which any part of the animal world can become unluckily subject; for when it has (seemingly and repeatedly) submitted to, and been subdued by, some of the combinations of combustibles before described, it has as suddenly, as repeatedly, and as unexpectedly, made its re-appearance with all its former virulence. Great care, nice attention, and long experience, have discovered one or two modes of perfect eradication. Let half an ounce of *corrosive sublimate* be reduced in a glass mortar to an impalpable powder; to this, by a very small quantity at a time, add two ounces (half a gill) of spirits of wine; and, lastly, one pint of rain or river water, and, with a sponge dipt in the solution, let every part palpably affected be well washed, every third day, till thrice performed; then leave three clear days, and repeat the former ceremony of thrice as before; letting three *mercurial purging balls* be given at the equal distances of three or four days, and not the least doubt of cure need be entertained, if the mode prescribed is properly and judiciously attended to.

Of the red mange General Hanger thus speaks:—"My dog had the mange; not very bad, but something much worse with it: he had eight or ten large blotches on his body, as big as large hazel nuts. I sent for an old man who made a livelihood by curing dogs: he took a bottle out of his pocket, and first dabbed the blotches with a bit of tow, each two or three times.—He then stopped about five minutes for that to dry in and penetrate; after which he took a pot of ointment, and rubbed the dog in well, for at least ten minutes, under the fore legs, and on the belly, but *particularly on the back bone*. He then desired me not to wash the dog, or let him go into the water; telling me, he would call in about five days. When he called, the dog was apparently well; so much so, that he said he did not think it necessary to rub the

dog again: however, I made him dab the blotches again, and rub once more in. When he called to be paid, I told him, that upon my honour, if he would discover how the liquid and ointment were made, I would give him two guineas, and never discover it till after his death. He consented. The liquid is thus made:—Half an ounce of quicksilver is put into a bottle, with half an ounce of oil of turpentine, for about eight hours before using it: shake the bottle frequently, and shake it always when you use it, for there will be a sediment at the bottom. The ointment is thus made:—Take half an ounce of quicksilver; put it in a bottle with half an ounce of oil of turpentine; let it stand for eight hours, shaking the bottle frequently; then take four ounces of hog's lard, and by degrees, mix both together, a little of each at a time, till the whole be incorporated. He told me that he always carried two pots of ointment with him, one stronger than the other, in case of a dog being very bad with the mange. The strongest ointment was made with only *three ounces* of hog's lard, but with the same quantity of quicksilver and turpentine."

The following is an effectual cure:—

Train oil, one ounce,
Black sulphur, one ounce,
Liquid blister, half an ounce,

to be rubbed on the dog every other day.

For the bite of the Adder, &c. The adder is not uncommon in some parts of England, and is occasionally to be met with, in the heat of summer, among sedges, and in marshy places. It differs from the snake in not being so long, the latter being found from three quarters to a yard long; the former seldom, or never, reaching three quarters of a yard; there is an appearance of malignity in the countenance of the adder, which does not obtain in that of the snake, the head of which is not so blunt as that of the adder; while the tail of the latter tapers more abruptly, and it is generally found of a more dusky colour. There is, however, another very essential difference:—the snake is destitute of teeth; while the adder is not only prepared in this respect, but has one particular tooth, on each side of the jaw, which has a communication with a sort of alembic, situated in the reptile's head, and which contains the venom: in this tooth, there is a slit; and when the creature becomes irritated and bites, the pressure thus occasioned upon the tooth,

causes the venom to ooze through the slit, and it is thus injected into the blood.

I have heard of a reptile, called the *slow worm*, the bite of which is said to be venomous; but I never saw one. The snake is perfectly harmless; the bite of the adder or viper will be attended with serious consequences if a remedy is not speedily applied. The remedy, however, is simple—the immediate application of sweet oil rubbed on the affected part, counteracts the effects of the venom most surprisingly: as I have witnessed it, I speak with confidence. Indeed, I am of opinion, that any vegetable oil (or animal either, perhaps) will answer the purpose; and have little doubt, that what will cure the bite of the adder will cure that of the *slow worm* also. Yet, for a further illustration of this subject, I will borrow the account of a favourite author. I am aware that the same account has already appeared in various publications; but, from a conviction that much good may result from its becoming generally known, I shall transcribe it without hesitation:—

“One William Oliver, a viper catcher, of Bath, was the first who discovered this admirable remedy. On the first of June, 1735, in the presence of a great number of persons, he suffered himself to be bit by an old black viper (brought by one of the company) upon the wrist and joint of the thumb, so that drops of blood came out of the wound: he immediately felt a violent pain both at the top of his thumb and up his arm, even before the viper was loosened from his hand: soon after he felt a pain resembling that of burning, trickling up his arm; in a few minutes, his eyes began to look red and fiery, and to water much; in less than an hour, he perceived the venom seize his heart, with a pricking pain, which was attended with faintness, shortness of breath, and cold sweats; in a few minutes after this, his belly began to swell, with great gripings and pains in his back, which were attended with vomitings and purgings; during the violence of these symptoms, his sight was gone for several minutes, but he could hear all the while.

He said, that in former experiments he had never deferred making use of his remedy longer than he perceived the effects of the venom reaching his heart; but this time, being willing to satisfy the company thoroughly, and trusting to the speedy effects of his remedy, which was nothing more than olive oil, he forbore to apply any thing, till he found himself

exceedingly ill and quite giddy. About an hour and a quarter after the first of his being bit, a chaffing-dish of glowing charcoal was brought in, and his naked arm held over it as long as he could bear, while his wife rubbed in the oil with her hand, turning his arm continually round, as if she would roast it over the coals: he said the poison soon abated, but the swelling did not diminish much. Most violent purgings and vomitings soon ensued; and his pulse became so low, and so often interrupted, that it was thought proper to order him a repetition of cordial potions: he said he was not sensible of any great relief from these, but that a glass or two of olive oil drank down seemed to give him ease. Continuing in this dangerous condition, he was put to bed, where his arm was again bathed over a pan of charcoal, and rubbed with olive oil heated in a ladle over the charcoal, by Dr. Mortimer's direction, who was the physician that drew up the account. From this last operation he declared that he found immediate ease, as though by some charm; he soon after fell into a profound sleep, and after nine hours' sound rest, awaked about six the next morning, and found himself very well; but in the afternoon, on drinking some rum and strong beer, so as to be almost intoxicated, the swelling returned, with much pain and cold sweats, which abated soon, on bathing the arm, as before, and wrapping it up in brown paper soaked in the oil.”

Burns and Scalds assume a very different appearance, according to the degree of heat or violence by which they are occasioned; if slight, and the skin only irritated, they are easily cured by instantly dashing the part affected in cold water, or constantly applying it till the pain and irritation have ceased; if slight blisters rise, they should not be opened at first, as is generally recommended; for if the air penetrates, it frequently produces an ulcer or sore. When a burn or scald is more severe, it must be constantly kept wet with the rag dipped in the following lotion:—

Goulard's extract of lead, two drachms,

Water, half a pint,

and the part kept as quiet as possible. Strong spirits, or oil of turpentine, is also serviceable when immediately applied; but the lotion is the most successful treatment either in scalds or burns. After the third or fourth day the blisters should be opened, but the skin not removed, and

then dressed with the following ointment:—

Olive oil, half an ounce,
Goulard's extract of lead, one ounce,

well mixed together, and spread on lint or soft rag, with a bandage over moderately tight.

When burns or scalds are so severe as to destroy the flesh from the bone, warm

poultices of oatmeal and water should be applied, and then treated as *suppuration*. See the article WOUNDS, &c.

The Hydrophobia. This is a dreadful disease, and has received a very appropriate name, as human beings, *but not dogs*, when afflicted with this little understood malady, uniformly testify an abhorrence of water, and, I believe, of fluids in general, and even shining substances.

"When Sirius reigns, and the sun's parching beams
Bake the dry gaping surface, visit thou
Each ev'n and morn, with quick observant eye,
Thy panting pack. If, in dark sullen mood,
The glouting hound refuse his wonted meal,
Retiring to some close obscure retreat,
Gloomy, disconsolate, with speed remove
The poor infectious wretch, and in strong chains
Bind him suspected. Thus that dire disease
Which art can't cure, wise caution may prevent."

SOMERVILLE.

The hydrophobia affords a striking instance of successful quackery in the avidity with which the *Ormskirk medicine* was purchased, till within these few years that the imposture has been exposed. This compound of calcined oyster shells, elecampane, roach alum, and bole ammoniac, was originally administered gratis; but no sooner was it discovered that the medicine was eagerly sought after, than the sale of it was advertised; agents were appointed in different parts; and many hundreds purchased and took the medicine who had been bitten, but not by *mad dogs*. A dog accustomed to the country is generally alarmed when he approaches a town or village; the shaking of a cobbler's apron, or some such thing, is frequently resorted to by the lower orders—the terrified animal takes to his heels, and will most likely snap at any person who attempts to impede his progress. Nothing is heard but the cry of mad dog! and many who have been bitten under such circumstances, have called in the assistance of the Ormskirk medicine, and have thus been willing to suppose a disorder prevented, which did not exist in the dog, and which, of course, could not be communicated.

The venders of the Ormskirk medicine, however, made the most of the matter—its infallibility was *puffed* upon the public in the most barefaced manner; and it was even publicly stated, that such was the virtue of the medicine, that even after the hydrophobia had made its appearance, the disease could be removed

by taking it. Cases, with fictitious names, were stated, and the grossest falsehoods resorted to, in order to levy contributions with more plausibility upon the credulity of the unthinking. I believe, at present, no person who wishes to preserve even an appearance of character, will attempt to palm the medicine upon the world; but it has still its supporters; and a number of old women, in various parts of Lancashire, still practice the deception, and show considerable dexterity in proping its falling reputation.

The recipe was obtained by the late Mr. Hill's father, who resided near Ormskirk, from an itinerant tinkler, in the year 1704. The medicine is thus prepared:—take one tea-spoonful of prepared (calcined) oyster shells, one knife point full of roach alum, as much elecampane, in powder, and half a tea-spoonful of bole ammoniac; all to be powdered finely, and given to the patient in the morning fasting, in a little wine and water, or small beer: at the same time the wound is to be dressed with a preparation, varying from that just described only in a greater portion of roach alum.

Not one dog in twenty, reputed mad, is so in reality—the cure, or rather the prevention, therefore, is certain in many instances; and where it happens otherwise, and the dog was labouring under the hydrophobia, the result is most melancholy: but then it is immediately and unblushingly asserted, that the medicine had not operated in a proper manner—it had not remained upon the stomach, or

been taken in sufficient quantity; and thus the cheat continues, though on a much more circumscribed scale.

The fact is, that the only certain remedy hitherto discovered for this dreadful disease, is the application of the knife:—the blood becomes infected by the saliva from the dog's teeth; and unless the bitten part can be immediately cut out, death will most likely be the result, though the precise time will be very uncertain; for so capricious is this malady, that, after infection, it sometimes lies dormant, as it were, in the system for months, sometimes for weeks; while instances, I believe, are not wanting, where it has appeared in all its terrible symptoms in the course of a few days.

It is possible that a person might be bitten by a mad dog, and yet escape the hydrophobia: if, in the act of biting, the animal's teeth pass through a thick woollen coat, or other garment, so that his teeth in passing through are wiped dry, he might inflict a wound without any of the infectious saliva or fluid reaching it.

Respecting the bite of a mad dog, Dr. Vandeburgh very judiciously observes—“Not a moment should be lost to destroy the poison from the wound (even if only on supposition of the animal being mad); many remedies are recommended, but should not be trusted to; the only effectual method is to destroy the foundation of the poison, and give the following course of medicine:—the part bitten must be entirely cut out with a sharp instrument, and the edges of the wound seared with a red-hot iron, to prevent the smallest particle of poison remaining; afterwards, warm poultices of oatmeal and water to be applied as hot as the patient can possibly bear, to produce a quick and copious discharge of matter or suppuration. The following pills should be given:—

Calomel, one scruple,

Opium, half-a-scruple,

well mixed, and divided into ten pills of equal size, one pill to be taken every four hours; two drachms of strong ointment of quicksilver to be well rubbed in on the thighs and arms morning and evening, which, with the medicine, must be continued till the mouth becomes sore and spitting is produced: when matter discharges from the sore, it should also be dressed with strong ointment of quicksilver thickly spread on lint, and the poultice continued over it: this treatment must be pursued for the space of one month, then the wound healed with Turner's cerate spread on lint,

but the mouth kept sore and slight spitting prolonged for at least two months, as hydrophobia has been known to make its appearance five and six months after the bite of the animal: sea-bathing is strongly advised; but I would always recommend the foregoing treatment in preference, a trial of which should not be omitted, if the poison was destroyed at first by cutting; neither if the bite has happened some time, nor even when the following symptoms have taken place: the part bitten becoming tender and inflamed, uneasiness and stupidity, frightful dreams, convulsions, eyes red and watery, pain all over the body, difficulty in swallowing, great thirst, and when liquid is only brought before the patient, he appears choked, accompanied with trembling and shivering over the whole body; vomiting bile frequently occurs, attended with great thirst and fever: the last symptoms are raging and foaming at the mouth, spitting at the by-standers, and strong convulsions, as if drawn double. No patient should be given over till the last moment: the mercurial friction should be tried, and the prescribed medicine given, while he exists, as there is hope of recovery by perseverance in the foregoing method.

“The patient should be kept on very low diet, and no spirits or wine be used.”

The following are the progressive symptoms of hydrophobia: when a dog becomes melancholy, droops his head, forbears eating, seems to forget his former habits, and as he runs snatches at every thing; if he often looks upwards, and that his tail at its setting on be rather erect, and the rest of it hanging down; if his eyes be red, his breath strong, his voice hoarse, and that he drivels and foams at the mouth, you may be satisfied of the approaches of hydrophobia; and the only thing that should be done is instantly to despatch him, however great a favourite he may be. If at this period he should remain at liberty, he will certainly leave his home: he goes as fast as he can; and the mischief that may happen, owing thus to a mad dog breaking away, and running over an extent of country, is incalculable, as he spares no living creature.

The following accurate description, from the pen of Mr. Youatt, appeared in the Sporting Magazine, September, 1825:—

“The symptoms of rabies in the dog are the following, and nearly in the order in which they usually appear:—an earnest licking, or scratching or rubbing, of some particular part; sullenness, and a

disposition to hide from observation; considerable costiveness and occasional vomiting; an eager search for indigestible substances, as bits of thread, hair, straw, and dung; an occasional inclination to eat its own dung, and a general propensity to lap its own urine. The two last are perfectly characteristic circumstances. The dog becomes irritable; quarrels with his companions; eagerly hunts and worries the cat; mumbles the hand or foot of his master, or perhaps suddenly bites it, and then crouches and asks pardon. As the disease proceeds, the eyes become red; they have a peculiar bright and fierce expression; some degree of strabismus or squinting very early appears; not the protrusion of the *membrana nictitans*, or haw, over the eye, which, in distemper, often gives the appearance of squinting, but an actual distortion of the eyes; the lid of one eye is evidently more contracted than the other; twitchings occur round that eye; they gradually spread over that cheek, and finally over the whole face. In the latter stages of the disease, that eye frequently assumes a dull green colour, and at length becomes a mass of ulceration.

After the second day, the dog usually begins to lose a perfect control over the voluntary muscles. He catches at his food with an eager snap, as if uncertain whether he could seize it; and he often fails in the attempt. He either bolts his meat almost unchewed, or in the attempt to chew it suffers it to drop from his mouth. This want of power over the muscles of the jaw, tongue, and throat, increases, until the lower jaw becomes dependent, the tongue protrudes from the mouth, and is of a dark and almost black colour. The animal is able, however, by a sudden convulsive effort to close his jaws, and to inflict a severe bite.

The dog is in incessant action: he scrapes his bed together, disposes it under him in various forms, shifts his posture every instant, starts up, and eagerly gazes at some real or imaginary object: a peculiar kind of delirium comes on: he traces the fancied path of some imaginary object floating around him: he fixes his gaze intently on some spot in the wall or partition, and suddenly plunges and snaps at it; his eyes then close, and his head droops; but the next moment he starts again to renewed activity: he is in an instant recalled from this delirium by the voice of his master, and listens attentively to his commands; but as soon as his master ceases to address

him, he relapses into his former mental wandering.

His thirst is excessive, (there is no hydrophobia in the dog) and the power over the muscles concerned in deglutition being impaired, he plunges his face into the water up to the very eyes, and assiduously, but ineffectually, attempts to lap.

His desire to do mischief depends much on his previous disposition and habits. I have known it not to proceed beyond an occasional snap, and then only when purposely irritated; but with the fighting dog the scene is often terrific. He springs to the end of his chain; he darts with ferocity at some object he conceives to be within his reach; he diligently tears to pieces every thing about him; the carpet or rug is shaken with savage violence; the door or partition is gnawed asunder; and so eager is he in this work of demolition, and so regardless of bodily pain, that he not unfrequently breaks one or all of his tushes. If he effects his escape, he wanders about, sometimes merely attacking those dogs which fall in his way; and at other times he diligently and perseveringly hunts out his prey: he overcomes every obstacle to effect his purpose; and, unless he has been detected in his march of death, he returns in about four-and-twenty hours, completely exhausted, to the habitation of his master.

He frequently utters a short and peculiar howl, which, if once heard, can rarely be forgotten; or if he barks, it is a short, hoarse, inward sound, altogether dissimilar from his usual tone.

In the latter stages of the disease, a viscid saliva flows from his mouth, with which the surface of the water that may be placed before him is covered in a few minutes; and his breathing is attended with a harsh grating sound, as if impeded by the accumulation of phlegm in the respiratory passages.

The loss of power over the voluntary muscles extends, after the third day, throughout his whole frame, and is particularly evident in the loins: he staggers in his gait; there is an uncertainty in all his motions; and he frequently falls, not only when he attempts to walk, but when he stands balancing himself as well as he can. On the fourth or fifth day of the disease he dies, sometimes in convulsions, but more frequently without a struggle.

After death there will invariably be found more or less inflammation of the mucous coat of the stomach; sometimes confined to the rugæ, at other times in

patches; generally with spots of extravasated blood, and occasionally intense, and occupying the whole of that viscus. The stomach will likewise contain some portion of indigestible matter, (hair, straw, dung,) and occasionally it will be completely filled and distended by an incongruous mass. The lungs will usually present appearances of inflammation, more intense in one, and generally the left lung, than in the other. Some particular points and patches will be of a deep colour, while the neighbouring portions are unaffected. The sublingual and parotid glands will be invariably enlarged; and there will also be a certain portion of inflammation, sometimes intense, and at other times assuming only a faint blush, on the edge of the epiglottis, or on the rima glottidis, or in the angle of the larynx at the back of it."

When the human species become unhappily the subjects of this calamity, though in particular instances some variation may be observed, yet the first symptoms are generally the same; these are, torpid disquietude in the wound (or seat of injury), attended with slight intervening itchings, ultimately amounting to pain, and much resembling rheumatic affection. It continues to extend itself to the surrounding parts; and, at length, from the extremities it expands its poisonous power to the viscera; the cicatrice, if there has been a wound, begins to swell, inflammation hourly increases, till, at length, a serous bloody ichor is discharged, and this alone may be considered the primary and invariable prognostic of certain hydrophobia. These leading symptoms soon become progressively general, bearing with them every appearance of confirmed rheumatism; they are fluctuating, quick, acute, and of the spasmodic, convulsive kind; they suddenly attack the patient, severely affecting the head, neck, and principal joints; a dull, drowsy pain, often seizes the head and neck, breast, abdomen, and even vibrates along the back bone. The patient is gloomy and inclined to solitude, murmurs much, seems lost in reflection, is forgetful, inattentive, and prone to sleep; at times agitating starts denote the mind to be disordered; by turns he is attentively watchful; his slumbers become disturbed; and suddenly awaking from those, convulsive appearances soon follow.

A deafness is sometimes complained of; the eyes are watery; the aspect sorrowful; the countenance pale, and the face contracted: sweat breaks out about the temples; an unusual flow of saliva, slimy and

viscid, at length comes on, with a dryness of the fauces, a foulness of the tongue, and a disagreeable smell (or rather fetid effluvia) from the breath. As the symptoms already recited increase, the second stage advances: a fever commences, which at first is mild, but makes with gigantic strides the most rapid advances to extremity; it is accompanied with hourly-increasing horrors, and all the alarming concomitants of mental derangement. Wakefulness becomes perpetual; violent periodical agitations ensue; the mind is evidently more and more disturbed; a delirium follows, at which critical moment an invincible aversion to *fluid, glass, or* any polished or shining body, is plainly perceived. A constriction of the gullet takes place, and an incredible difficulty of swallowing ensues; liquids are offered, and are attempted to be taken, but the disgust and loathing become so predominant, that they are most violently declined; and this symptomatic dread and aversion so wonderfully increases, that, upon the very appearance of any watery fluid, the greatest horror comes on, and the most shocking muscular distortions ensue; if the liquor is attempted to be forcibly pressed upon them, the experiment is rejected by an instantaneous succession of the most horrid gesticulations, and convulsive distortions, in which every ray of reason seems to be absorbed. Upon a temporary cessation of so distressing a paroxysm, the poor unhappy patient now murmurs, mourns, and groans most miserably; loses, by degrees, all knowledge of his dearest friends and most familiar acquaintance; and their presenting themselves before him is the very critical moment, when all of this description give proof of their desire to bite, which, in the attempt, bears no ill affinity to the similar snappings of a village cur.

Awful to relate, reason returns at intervals, and he feelingly laments his own calamity, and deplores his own incapacity. A consciousness of approaching dissolution is perceptible even to himself, and he seems truly resigned to the singularity of his fate. Severe pain and consequent heat producing thirst, a desire to drink is displayed; but Nature shrinks from her office; in vain the patient raises his hand to touch the vessel, it almost magically produces instant tremor—the hand recedes, and he sinks into the most afflicting despondency. Conscious, likewise, of his constantly-increasing inclination to bite, he, in his rational moments, makes signals to warn his

friends of the danger, and keep themselves at a distance. Towards the conclusion of this dreadful and most melancholy scene, the fever and parching thirst increase, the tongue becomes swelled and protruded, foam issues from the mouth, strength fails, cold sweats come on, the stricture on the breast increases, as well as the other predominant symptoms, until, in a long succession of convulsive struggles, all-powerful death closes the scene.

The cause of the hydrophobia is utterly unknown; and its effects hitherto appear to have baffled every remedy which has been tried for its removal. Copious and repeated venesection was, a few years ago, announced to the world as a cure for the hydrophobia, and instances were given in order to confirm it: it is true, they came in a questionable shape on account of the distance they had to travel, being chiefly from the East Indies: however, the method just mentioned has been tried in this country, and found unavailing.

The *alisma plantago* was introduced as a remedy, but, on repeated trial, has proved ineffectual.

Another remedy has been introduced. This new remedy comes from a distance; but let us not reject it merely on that score. The account has appeared in several medical works, and was first published, it seems, by Dr. Muller, of Vienna—a scientific physician, now resident at Paris. The German physician says, he received the particulars from M. Marochetti, a Russian surgeon, who informed him, that, during his residence in the Ukraine, in the year 1813, he was called on to attend *fifteen* persons who had been bit by a mad dog, when some old men requested him to treat the unfortunate people according to the directions of a neighbouring peasant, who had acquired a great reputation for curing the hydrophobia. M. Marochetti allowed the peasant to attend *fourteen*, reserving one to himself, a female of sixteen, who was cauterized and treated in the usual way, and expired *eight days after the attack*. The peasant gave to the fourteen persons placed under his care a strong decoction of the tops of the flowers of the *yellow broom* (a pound and a half a day). He examined twice a day the under part of the tongue, where he had generally discovered little pimples, containing, as believed, the hydrophobic poison: these pimples really followed and were observed by Marochetti himself. As they formed, the peasant opened them, and cauterized the parts with a red-hot

needle; after which, the patients gargled with the decoction mentioned above. The result of this treatment was, that the fourteen patients were cured, having only drank the decoction for six weeks. Marochetti then states, that, five years afterwards, he himself had an opportunity of giving this treatment another trial. Twenty-six persons who had been bitten by a mad dog, were put under his care, viz. nine men, eleven women, and six children: he ordered the decoction of the tops of the flowers of yellow broom to be given them as soon as possible; and upon an attentive examination of their tongues, he discovered pimples on five men, three children, and all the women. Those who were most wounded were afflicted on the third day; the others on the fifth, seventh, or ninth. One of the women who had been slightly bitten in the leg, had no appearance till the twenty-first day. The seven who were free from pimples took the decoction of broom for six weeks, with success. M. Marochetti thinks that the hydrophobic poison, after having remained in the wound, fixes itself under the tongue, in the orifices of the ducts of the submaxillary gland, which are situated on the sides of the frænum. The inflammation, of which the little pimples are the result, has a peculiar appearance. The time in which these pimples appear, is generally between the third and ninth day after the bite. If they are not opened before twenty-four hours after their appearance, the venom is absorbed, and the patient is lost.

I shall be extremely anxious to hear of the success of this mode of treatment nearer home; for I must confess I cannot place implicit confidence in the narrative.

Were I bitten by a mad dog, I should as soon as possible cause the wound to suppurate, and continue the suppuration for a considerable period.

Dumb Madness.—Upon the disease, erroneously denominated Dumb Madness, I will relate what fell under my own observation, and from which a tolerable idea of the disorder may be formed:—In the month of May, 1823, a pointer whelp was presented to me by a friend, which I knew to be as well bred as any in the kingdom, and on that account, I, of course, prized him more highly. The dog was whelped on the 16th of April, of the same year; and as soon as I received him, a kennel was appropriated for his use in the open air, well littered with wheat straw, and kept clean. He had

full liberty, and a clear stream of water close at hand, to quench his thirst whenever he thought proper. The dog, as might be expected, was remarkably healthy; and, at seven months old, had become an amazingly fine animal: at this period, he experienced a slight attack of the distemper, which immediately gave way to bleeding and a dose of tartar emetic; and in three or four days he was restored to perfect health. His colour was a perfect jet black; he was larger than common, and altogether, the finest young pointer I ever saw. On the 8th of January, (of the following year,) I observed the dog keep his mouth almost continually open, the inside of which appeared darker coloured than usual, and somewhat swelled. I immediately bled him copiously, which, however, produced no visible alteration; on the contrary, the next day all the symptoms had evidently increased, and I observed that he was unable to swallow, though he made many attempts both to eat and drink, particularly the latter; but the water or the milk, which, by putting his nose into the vessel, he contrived to get into his mouth, uniformly run out again, and he appeared utterly unable to pass it down his throat: he licked his fore-legs very much, and seemed to have a trifling discharge of mucus, or saliva: but all this time the dog appeared not only perfectly sensible, but even in good spirits, and evidently experienced but little pain. A sporting acquaintance, who saw him, said the disease was what was distinguished by the appellation of *dumb madness*, which seems to me altogether a ridiculous term; and supposing this to have been the disorder with which my dog was affected, I can testify that the term is very improperly applied, as the animal in question regularly barked on the approach of a stranger, though in a different tone, and with more difficulty than usual. However, I immediately searched authorities for *dumb madness*, with a view to ascertain the proper mode of treatment. In an old writer, (the author of the "Gentleman's Recreation,") I found it thus described:—"The dog that is troubled with dumb madness will not feed, but holds his mouth *wide* open continually, putting his feet to his mouth frequently, as if he had a bone in his throat." Now, though my dog kept his jaws somewhat distended, his mouth was not *wide* open, but only partially so, and that he was able to shut it I can safely attest, as I saw him many times

close his jaws, though he never kept them more than a second or two in that position; further, the animal frequently licked his fore-legs, but I never saw him raise his feet, or otherwise use indications similar to those adopted by a dog when he seems to have a bone in his throat; and therefore the cases did not appear to agree.

I had next recourse to the "Sportsman's Dictionary, or Gentleman's Companion;" the third edition of which was published in 1783, which contained the following observations:—"Dumb madness *lies in the blood*, and causes the dog not to feed, but to hold his mouth always wide open, frequently putting his feet to his mouth, as if he had a bone in his throat."

To be brief—I perused every thing within my reach, on the subject of dogs and their diseases, but without gaining the least information; and, as the disorder, at least in the form in which it presented itself, was new to me, I began to entertain fears for the life of my dog, and the sequel will prove they were but too well founded. I have already remarked, that I first perceived the disease on the 8th of January, and the dog continued much in the same way for four successive days, during which, all his faculties appeared very little, if at all, impaired. He would follow me into the field, and even hunt, frequently attempting to drink, and, in order to accomplish that desirable object, would thrust his nose into the water, instead of attempting to lap; but he never succeeded in forcing any of the fluid down his throat: his sense of smell was as perfect as ever; and, indeed, though he evidently became very lean, he might be said to be in good spirits till the morning of the 13th, when I found him very languid, his eye had lost its lustre, and death was evidently fast approaching. He was perfectly sensible, and whenever I approached and spoke to him, he raised his heavy eyes, and by these, as well as by the movement of his tail, appeared grateful for my attention. Towards the evening he made a last effort to swallow food, but was not able. On the following morning he was stretched on his side, and had every appearance of death, only that a breathing, at very long intervals, proved that the vital spark was not absolutely extinct. Some few hours afterwards he was perfectly lifeless; and I was resolved, if possible, to ascertain the cause of his death. For this purpose I called in the

assistance of a skilful veterinary surgeon, and the animal was dissected in my presence. On opening the body, it was abundantly evident that the dog had been starved to death; or, in other words, had died for want of food. The lungs, the liver, and, indeed, all those parts of the animal organization, were totally unaffected, and manifested not the slightest symptoms of disease; the same remark will equally apply to all parts of the throat, and also to the brain; and the only affection that could be discovered, was in the salivary glands, which were triflingly swelled. On the whole, I feel a perfect conviction, that the disorder of the dog was a glandular affection, which, by rendering him incapable of swallowing sustenance, caused his death.

Of the cure, should a similar case come under my observation, I feel confident; and I have been thus minute for the information of sportsmen in general, particularly as I have been informed, that the disorder which I have attempted to describe or something very much resembling it, has carried off, within the last few years, great numbers of valuable dogs, especially in Yorkshire. Should a similar case occur with any of my dogs, I should force food, (nourishing broth, for instance,) down the throat, with an instrument adapted for the purpose; and if I found it impossible to get it down, I would inject it into the bowels, when a sufficient quantity would be taken up by the absorbents, to sustain life till the disease of the glands abated. In the first place, I should feel a disposition to bleed the afflicted animal, as this would prevent any superabundant pressure of blood upon the parts affected, which I might perhaps rub well with mercurial ointment.

It is a lamentable fact, that so little attention has been paid to the diseases of this invaluable animal, though no creature which has yet been taken under human protection affords so good an opportunity for observation, or is so much entitled to the assistance and kind offices of its master. The dog has become a domestic of the most familiar description, whose greatest delight is in administering to the pleasures of the sportsman, or those by whom his services are called into action; his civilization may be said to proceed in the precise ratio with that of human nature, and he uniformly takes his tone from the circumstance or the situation of his master. As he has closely associated himself with man, therefore, he has

brought upon himself a train of diseases, resulting from his artificial mode of life; and from which, in a state of nature, there is little doubt, but he is altogether exempt. In fact, living under the same roof, and in the same manner, as his master, he seems to be afflicted something in the same way; and, upon close examination, it will be found, that many of his disorders bear a strong resemblance to those in man, and would, I have little doubt, give way to a somewhat similar treatment. Thus circumstanced, it seems unaccountable that the medical treatment of this faithful creature should have been so neglected. Generally speaking, whenever a dog is attacked with any disease, little trouble is taken in his recovery; food is offered him, and if he is able to eat it and recovers, it is all right; but it very frequently happens, that the moment he exhibits symptoms of indisposition, he is suspected of hydrophobia, and, without any attempts to alleviate his pains, he is placed in a situation of security, and either suffered to pine away, or is prematurely despatched. This may not apply altogether to sportsmen, perhaps; though many of these, I have not the least doubt, pay but little attention to the matter. In kennels of hounds, and other large dog establishments, there is a certain method followed; or, in other words, there is a list of disorders which is supposed to be understood by the huntsman, or gamekeeper, and, in like manner, a regular list of antiquated applications or medicines is placed, as it were, opposite the disorders: now, if the medicines were positively applicable to the diseases, is it likely that the latter are so understood, that one is not frequently mistaken for another? Or, can it be supposed, that the persons in question are sufficiently skilled in the science of healing, so as to discern those turns or alterations by which the same disease assumes a different form, and, accordingly, requires different treatment?—This is too much to expect. Huntsmen and gamekeepers, also, are generally much attached to their dogs, and seldom fail to show them considerable attention, when they are diseased; and though I may have met with some who possessed acute perception and sound sense, yet, in order to acquire a thorough knowledge of the subject on which I have been speaking, a superior education seems indispensable, as well as much more extensive practice than could possibly be afforded by any one dog establishment in the king-

dom: if extensive practice be necessary to the physician and the surgeon, why not to the dog doctor also? In any science or profession where the success must depend very much upon the practitioner's powers of perception, some degree of education is not only indispensable, but superior abilities or considerable genius also. It is not likely, that the requisite opportunities and qualifications will be found united in many instances; and, under such circumstances, I would strongly advise sportsmen to pay as much attention to their diseased dogs as possible; and whatever reliance they may place upon their servants, it can do no harm to watch the progress of the disorder themselves.

Many sportsmen of the old school, in their treatment of the diseases of dogs, seem to have resorted to superstitious notions, and to have disregarded true philosophy altogether; so much so, indeed, that it is amusing to read many of their ideas on the subject. It is possible, however, that dog-diseases might formerly have existed, which are unknown at the present day; but a disease called the *yellows*, that has sometimes appeared in kennels of hounds, I never saw described in any publication, but "*Johnson's Hunting Directory*;" nor is it generally known even among sportsmen, though, wherever it has appeared, its effects have been very violent, and frequently attended with fatal consequences.

The Yellows.—This would appear to be a disease peculiar to the kennel, which makes its appearance in all ages of the dog. In the first approaches of the *yellows*, the animal loses his appetite, and of course appears dull. On turning up his eye-lids, a yellow appearance presents itself; the inside of his flanks exhibits a similar hue or colour. Hence it would seem that the disorder is something of a bilious nature; or, at least, it assumes a complexion which would seem to warrant such a conjecture. At all events, if it be not immediately checked, it will end with the death of the dog. This disease, which is not of an ancient date, made considerable havock in many kennels, till at length, the following treatment was found efficacious:—As soon as the dog is perceived to be ill, four grains of calomel should be administered to him, and he should be kept warm during their operation. Then take, Rhubarb, 1 oz.—Aloes, half an oz.

Castile soap, half an oz.

Cæthiop's mineral, half an oz.

These should be mixed up with syrup of buckthorn, and made into boluses about the size of a nutmeg; one of which should be given every morning for three successive days, when one may be administered every other morning for a week, or longer if necessary. For this method of treating the yellows, I am indebted to W. Head, Sir Harry Mainwaring's huntsman; which, he informed me, he had found successful almost invariably.

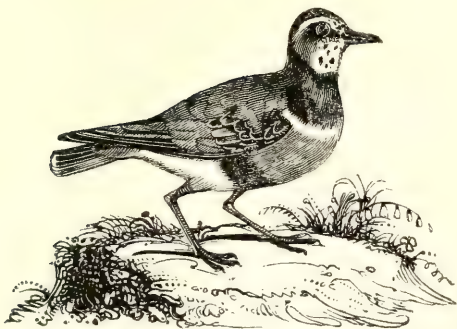
Lameness in the Shoulder may also be regarded as a disease of the kennel.—This seems to be produced by damp kennels, and may be prevented by the administration of warmth, though it cannot always be cured when it has taken place; yet I am inclined to think that warmth is the best remedy, as well as an absolute preventive.

DOTTEREL. The length of the dotterel is about ten inches. The bill is not quite an inch long, and is black. The forehead is mottled with brown and grey: the top of the head is black; and over each eye there is an arched line of white, which passes to the hind part of the neck. The cheeks and throat are white; the back and wings are of a light brown, inclining to olive, each feather margined with pale rust colour. The fore part of the neck is surrounded by a broad band of a light olive colour, bordered below with white. The breast is of a pale dull orange; the middle of the belly black; and the rest of the belly and the thighs are of a reddish white. The tail is olive brown, black near the end, and tipped with white; and the outer feathers are margined white. The legs are of a dark olive.

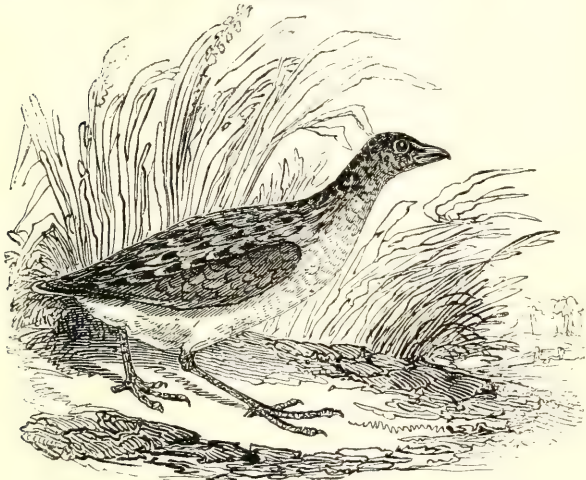
These birds are migratory; appearing in flocks of eight or ten, about the end of April; and staying all May and June, when they become very fat, and are much esteemed for the table. They are found in tolerable plenty in Cambridgeshire, Lincolnshire, and Derbyshire; but in other parts of the kingdom they are scarcely known. They are supposed to breed among the mountains of Westmoreland and Cumberland.

The dotterel is in its manners a very singular bird, and may be taken by the most simple artifice. The country people are sometimes said to go in quest of it, in the night, with a lighted torch or candle; and the bird on these occasions will mimic the actions of the fowler with great archness. When he stretches out an arm, it stretches out its wing; if he moves a foot, it moves one also; and every other mo-

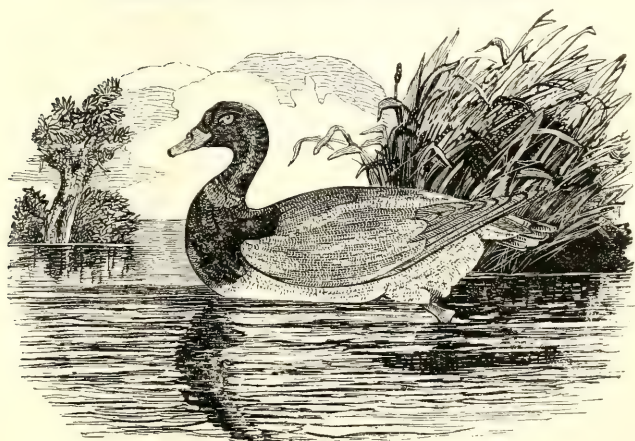
BIRDS, *Plate II.*



DOTTEREL, *p.* 236.



DAKER-HEN, LAND-RAIL, or CORN-CRAKE, *p.* 198.



DUN-BIRD, or POCHARD, *pp.* 242 & 649.

tion it endeavours to imitate. This is the opportunity that the fowler takes of entangling it in his net. Willoughby, however, cites the following case:—six or seven persons usually went in company to catch dotterels. When they found the bird, they set their net in an advantageous place; and each of them holding a stone in either hand, they got behind it, and striking the stones one against the other, roused it from its natural sluggishness, and by degrees drove it into the net. The more certain method of the gun has of late superseded both these artifices.

DOUBLE. A term in hare hunting. The hare is said to double, when, being considerably a-head of the hounds, she throws herself to the right or left, and returns in a parallel line to the track she went before; getting into which, she is said to run the foil. If, during the chase, she lays down, she is then said to squat.

DRAG is a sporting term in hunting, and used exactly in the same sense with the fox, as trail is with the hare. Upon throwing the hounds into covert, to draw for a fox, any single hound giving tongue, is said to challenge, and to have hit upon drag; that is, to have come upon the foot or scent of the fox, where he had been in the night or early in the morning, before he retired to secrete himself for the day.

DRAGON. The property of Tregonwell Frampton, Esq. of Moreton, Dorsetshire. Mr. Frampton was keeper of the running horses at Newmarket, to their Majesties William III. Queen Anne, George I. and George II. He was styled, for a great number years, “the father of the turf” and died on the 12th of March, 1727, aged 86.

This extraordinary character was born in the reign of king Charles I. when the sports of horse racing commenced at Newmarket; he was owner of the celebrated horse Dragon, who ran several times there with great success, but the account thereof, as also that of his pedigree, has been for many years lost.

The most remarkable event in the lives of this gentleman and his horse Dragon, is most pathetically depicted by Dr. John Hawsworth (in No. 37 of the *Adventurer*) in the following words; supposed to be spoken by the horse in the *Elysium of Beasts and Birds*.

“It is true,” replied the steed, “I was a favourite; but what avails it to be a favourite of caprice, avarice, and barbarity? My tyrant was a wretch, who had gained a considerable fortune by play,

particularly by racing. I had won him many large sums; but being at length excepted out of every match, as having no equal, he regarded even my excellence with malignity, when it was no longer subservient to his interest. Yet I still lived in ease and plenty; and as he was able to sell even my pleasures, though my labour was become useless, I had a seraglio, in which there was a perpetual succession of new beauties. At last, however, another competitor appeared: I enjoyed a new triumph by anticipation; I rushed into the field, panting for the conquest; and the first heat I put my master in possession of the stakes, which amounted to ten thousand pounds. The proprietor of the mare that I had distanced, notwithstanding the disgrace, declared with great zeal, that she should run the next day against any gelding in the world, for double the sum: my master immediately accepted the challenge, and told him, that he would the next day produce a gelding that should beat her: but what was my astonishment and indignation, when I discovered that he most cruelly and fraudulently intended to qualify me for this match upon the spot; and to sacrifice my life at the very moment in which every nerve should be strained in his service!

“As I knew it would be in vain to resist, I suffered myself to be bound: the operation was performed, and I was instantly mounted, and spurred on to the gaol. Injured as I was, the love of glory was still superior to the desire of revenge: I determined to die as I had lived, without an equal; and having again won the race, I sunk down at a post in an agony, which soon after put an end to my life.”

When I had heard this horrid narrative, which indeed I remembered to be true, I turned about in honest confusion, and blushed that I was a man!

Dragon raced in the latter end of the reign of Queen Anne; and the newspapers of that period would no doubt have mentioned so extraordinary a circumstance had it really happened; it would also have been recorded in various other publications. Frampton resorted to many stratagems to accomplish his purposes, and in consequence was much and justly suspected; but I can never consent to place this in the catalogue of his misdoings, unless I had much better authority than the flimsy and mawkish testimony of Dr. Hawsworth. The truth of the following relation there is not much rea-

son to question: A celebrated horse, called "Merlin," was matched for a considerable sum of money to run against a favourite horse of Mr. Frampton's at Newmarket. Immediately on the match being closed there was great betting amongst the north and south country gentlemen. After Merlin had been some little time at Newmarket, under the care of one Heseltine, Mr. Frampton's groom endeavoured to bring him over to run a *private trial*, at the stated weights and distance agreed upon in the match; observing, by that means, they might both make their fortunes. Heseltine refused, but in such a manner as to give the other hopes of bringing him over. In the mean while, Heseltine took the opportunity of communicating, by letter, into Yorkshire, the proposed offer, to Sir W. Strickland, Bart. who was principally concerned in making the match. Sir William returned for answer, that he might accept it; and instructed Heseltine to be sure to deceive his competitor, by letting Merlin carry seven pounds more weight than that agreed upon, and at the same time laying a particular injunction to secrecy.—Soon after Heseltine received this hint, he consented to the proposal; but previously thereto, Mr. Frampton had given his groom similar instructions. The two horses were prepared, started, and ran over the course agreed to in the articles of the match; when Merlin beat his antagonist something more than half a length after excellent running. This being communicated by each party by their secret and faithful grooms, who both rode the trial, flattered each with certain success, Merlin's friends observing, that, as he had beat the other with seven pounds more weight, he would win his race easily. On the other hand, says Mr. Frampton, as my horse ran Merlin so near with seven pounds extra weight, he will win the race to a certainty. Immediately after, bets were made to an enormous amount and it has been asserted that there was more money sported on this event than was ever known, gentlemen not only staking all the cash they were able to advance, but their other property also. At length the important hour arrived for the determination of this great event, and each party flushed with the prospect of success; the south country gentlemen observed to those of the north, that "they would bet them gold, while gold they had, and then they might sell their land." The horses started, and the

race was won by Merlin, by about the same length as in the secret trial. In a short time after, it became known, to the mortification of its inventor, Tregonwell Frampton, Esq.

DRAG-NET is the particular net in use with those nocturnal depredators who exert their utmost endeavours to devastate every water in the neighbourhood where they reside. It is of sufficient length to extend from one side of any moderate pond, moat, or river, to the other; and having the bottom plentifully loaded with leads at equal distances, with the addition of assistants at each end to bring the two together, encloses of course all the fish within its draught.

DRAWING is a term used in fox and stag-hunting, when drawing a covert to find either of the former, or an outlying deer; it being customary to say, "We draw for a fox;" "we try for a hare."

DRAW-NET—formerly used with the setting dog, but superseded by the fowling-piece.

DRAY. A squirrel's nest.

DRENCH, or DRINK. Any medical composition prepared in a liquid form, and given to horses or cattle for the cure of disease. A distinction is made between the two in general; it being the custom to say *drink* for a horse—*drench* for a cow.

DRESSING. The periodical application of friction, by means of brushes, cloths, &c. to the hides of animals, with a view both to cleanliness and health. To the horse, as the nobler animal, is allotted the greatest share of this salutary and gratifying process; the inferior descriptions of cattle being left to rub off their impurities as well as they can.

On this subject Mr. Clarke observes, that as exercise acts as an assistant to the heart in promoting the circulation of the fluids, so does friction on the surface of the body, by means of the curry-comb and brush, contribute to forward the circulating fluids, and promote that insensible perspiration through the pores of the skin which is so conducive to the health of the animal.

Currying and brushing of horses that are kept in stables is done not merely with a view of taking away the dust and dirt that may be collected on the hair; but, when properly performed, it is a very beneficial operation to horses, as they naturally perspire much through the pores of the skin. This appears indeed from the effects which result from the omission of it. When this operation is neglected,

or slightly performed, the perspirable matter hardens in the pores; it remains at the roots of the hair, and has the appearance of a whitish or brownish dust, and sometimes like small scales, which, for the most part, creates an itching: the skin, at the same time, generally appears dry and hard, the hair stares or stands on end, instead of lying smooth and shining.

Columella observes, that the bodies of cattle ought to be rubbed down daily, as well as the bodies of men; and oftentimes it does them more good to have their backs well rubbed down, than their bellies filled with large quantities of provender.

From what is known of the salutary effects of friction on the human body, it will be evident how much benefit may be derived to horses (if not to inferior cattle) from good rubbing and dressing as frequently as possible; but more especially when they are cold and chilly, after being over-heated, or from being suffered to stand in the cold air tied at the stable-door. Dressing becomes then the more necessary, as it produces a gentle heat and warmth all over the surface of the body, prevents stagnation of the fluids in the vessels on the surface, and promotes a free perspiration.

However, though the greatest advantages may be derived to horses when in health by daily rubbing their bodies, yet Mr. Clark observes, there are cases of disease in which it may prove hurtful in certain parts; as in swellings of the legs, attended with inflammation, where rubbing with the hands is frequently recommended; or when there is a discharge of sharp ichorous matter from the pores, or in cracks in the heels, attended with great pain, or in wounds or punctures. As all these are attended with more or less inflammation, friction then proves hurtful on these parts; for the heat there being already considerable, friction will add to it, and, of course do mischief: besides, as the vessels, in such cases, are too full and distended with blood, the force that is applied in rubbing the legs renders these vessels liable to be ruptured.

Washing horses with cold water, in order to clean them, by throwing whole pailfuls on their bodies when they are over-heated, immediately after posting, &c. which is now so commonly done on the post-roads, is a practice concerning which Mr. Clark speaks doubtfully; though it is said that no bad consequences follow from it. If they are well rubbed down immediately

after such exercises, there is, he thinks, no need for washing them with cold water, and then rubbing them afterwards; as the latter operation is sufficient to clean them, without running any risk by washing them with cold water. He thinks it probable, that the only thing which prevents immediate bad consequences following from this manner of treatment is, that such horses are very soon afterwards put to active exercise on the road, by which they are put into strong perspiration again; for not only our experience (the above instance only excepted), but the experience of past ages, have demonstrated the bad consequences that commonly follow the too sudden application of cold, whether it be water or air, to an animal body when over-heated. Hence, it should seem most prudent to avoid the washing of horses, when they are over-heated, with cold water, more especially in cold chilly weather, as it answers no good purpose, and certainly is not without danger. For the same reason, washing the dirt off horses' legs, belly, and thighs, with cold water, immediately after they have performed a stage and have been over-heated, should likewise be avoided till they are cool. If well rubbed afterwards, and thoroughly dried, it will be very proper; but this is very seldom put in practice.

DRIFT, is the act of driving a common. This ceremony takes place once, twice, or thrice, a year, (according to the custom of the place) to ensure and continue the privilege of the lord of the manor, as well as to preserve the rights of the parishioners. The cattle upon the commons and wastes being all driven to some particular spot, are there examined, and their owners ascertained: those belonging to parishioners (or such as have right of common) are immediately liberated, and return to their old lair; others, the property of aliens, are impounded, and the owner is fined such reasonable sum as may be thought equitable by the bailiff of the manor. No owner being found, the object (whatever it be) is called an estray, which being cried three times in the nearest market towns, and not claimed within twelve months and a day, it then becomes the property of the lord of the manor.

DRINK, a liquid form of medicine occasionally administered to horses and other cattle.

In drenching horses, it is usual to draw up their heads pretty high with a cord fastened round the upper jaw, holding up

the horse's head in that posture till the drink has passed down into his stomach.

Mr. Clark, of Edinburgh, observes, that great care should be taken to compound the medicine properly, and not to mix drugs of opposite qualities, which do not unite or mix intimately together.—Common farriers, totally ignorant of chemistry and pharmacy, do not attend to this circumstance. Hence, the drenches which are frequently given to horses are so very nauseous and disagreeable, that they will not swallow them, and they are consequently rejected and spilt in the administering; or, when swallowed, as they sometimes are, with reluctance, they occasion such a nausea or sickness, that they too frequently increase rather than alleviate the complaints they are intended to remove. Thus, when balsams are to be administered, if they are not properly blended with some mucilaginous substance, they will swim entire on the surface of the liquid in which they are intended to be given; and, if poured into the mouth in their original form, their pungency irritates the membranes of the mouth and throat, and occasions violent coughing. Much also is spilt in the struggle, and the horse will prove shy afterwards to take any thing that is forced upon him in the form of a drench. Rough substances, hot spices, ardent spirits, wines, powders, &c. produce this effect when they are not properly compounded; and Mr. Clark says he has frequently known pieces of solid gums, as large as a walnut, forced upon horses in a drench, in consequence of the prescriber's not knowing how to dissolve, or neglecting to reduce them to a powder. Venice or common turpentine, he observes, is frequently prescribed to horses with success, when *properly prepared*; yet, when these are administered without any other preparation than that of being reduced into a fluid state by the heat of the liquid in which they are given, they prove disagreeable, by sticking about the mouth and throat, and occasion violent coughing.—The same observation holds with respect to other remedies; and thus, by the injudicious compounding of drugs, the most powerful of them may be rendered of no effect; the poor animals fall a sacrifice to ignorance, and are deprived of that relief under their various diseases which it is in the power of medicine to afford, if properly administered.

"The proper time of administering drenches," says Mr. Clark, "is likewise

of great importance; and, indeed, on this circumstance, in a great measure, depends their whole success in practice; for, however well adapted the compositions may be at a certain particular period of a disease, to remove or to mitigate it, yet, in certain cases, the very administering of medicines in the form of a drench proves hurtful, particularly when the throat, jaws, &c. are sore, swelled, and inflamed: the forcing a drench on a horse in this critical period is followed with the most violent symptoms: and it has frequently happened, that a simple solution of nitre in water, sweetened with honey or molasses, given in the above cases, has occasioned the most violent coughing, trembling, panting, &c. insomuch that the poor animals were like to drop down, merely from the acute pain they suffered from administering any thing by way of a drench in this critical period. The very position a horse's head is put in to receive a drench, in these cases, creates to him the most exquisite pain, from the distension the muscles of the throat, &c. undergo, when the head is held up by force, at a time when the animal can hardly bear these muscles to be touched by the fingers even in the gentlest manner.

"From what has been now observed, it will be evident how highly imprudent it is even to attempt the giving food or medicines by way of a drench in these cases, till such time as the swelling, inflammation, &c. are abated; and even then no medicines should be given but such as are of the emollient kind, and, at the same time, well blended with mucilaginous substances, as the infusion of linseed, solution of gum-arabic, or the yolks of eggs; as these substances blunt the pungency or sharpness of the drugs that are administered.

"As all herbs, seeds, &c. yield their virtues readily to water, they should be infused in that which is boiling, and the thin parts drained off for use; balsams should be incorporated with mucilages, gums should be powdered or dissolved, and all drenches should be made as agreeable as possible, and sweetened with molasses or honey."

DROPSY OF THE CHEST is a disorder to which horses are subject; and many instances have occurred in the practice of the author, where seven, eight, and in one case near ten gallons of water were found in the cavity of the chest, upon opening the body after death. This ac-

cumulation of fluid being completely extravasated, no hope of cure can be entertained, as the preternatural collection can neither be taken up by absorption, or carried off by evacuation. There seems to be only one predominant trait, or distinguishing symptom, by which this disorder can be even tolerably ascertained, and that is solely by the action of the horse. In either walk, trot, or gallop, (and the more as his pace is increased in each) the fore legs seemingly spread from each other, as if they were internally distended by painful pressure, similar to division by forcible expansion, not at all unlike the means used by butchers in the stick pointed at each end to extend the limbs of carcases when displayed for sale. The legs in a trot constitute a painful hobble; and in a gallop the subject cannot get his legs before him, but appears at every motion likely to pitch upon his head. All this gives every reason to believe the defect, when first discovered, is frequently thought a lameness in the shoulder, and the patient immediately deemed a chest-foundered horse. If a horse having a dropsy in the chest, and the collection of water (from the duration of disease) is large, much information may be derived respecting the certainty, by the following experiment. Lead, or let him be rode up a gentle ascent, and he will be observed to move with but very little pain or impediment: the moment he is turned round, and descends, the weight of the water in the chest coming forward, and being pressed upon by the contents of the abdomen, in the action of going down hill, instantly produces so much pain, and such difficulty of proceeding, that with judicious practitioners, or nice observers, no great hesitation can arise in pronouncing the probable certainty of this disease.

DRUGS, a popular appellation denoting the various medicinal substances employed in the cure of diseases. Chemicals, as well as Galenicals, go under the general name of drugs. One of the crying sins of the age is, the adulteration of these, or the substitution of one substance for another. These frauds commence even in the country which produces the article; and it becomes more or less debased according to the number of hands through which it is conveyed to the unfortunate patient, whose life perhaps is the price of this detestable and most wicked practice. Mr. John Lawrence calls the attention of those who practice

veterinary medicine to the probable danger of the most judicious prescriptions, where the ingredients are defective, or not to be depended upon. The advantages of ready-made medicines (*i. e.* of drugs compounded pharmaceutically into balls, drinks, &c.) he says, are obvious enough; but it were to be wished there were less to counterbalance these: for, it must be acknowledged, the temptation of putting off bad drugs in these compositions is great, the hazard of their being stale considerable, and the uncertainty not a little in point of accuracy, where it may be reasonably supposed very large masses are compounded at one time. Instances, he says, are not wanting, where the distribution of the cathartic bases has been so irregular, that one ball has acted as a mere alterant, while another has nearly purged a horse to death. Nor, in these ready-made medicines, need we expect, where two kinds of the same article are to be had, any but that which is inferior; as in the instance of aloes, of which the Barbadoes is the cheapest and least favourable in its effects; and rhubarb, of which the Turkey is the best and the dearest.

From a little book, published under the auspices of that Duke of Devonshire who was the proprietor of Flying Childers, Mr. Lawrence transcribes the following general advice with regard to the purchasing of drugs for veterinary uses; first premising that the author complained much of the badness of the drugs purchased by the country apothecaries in his days, which he asserts were the worthless refuse of the London shops; and that he once had a horse killed by a farrier's drench.

1. *Chemical Preparations* should be had from the most eminent chemists in London, which, if kept well stopped in flint glasses, will be preserved good for many years.

2. *Woods and Gums*. Woods should ever be purchased in the piece: in chips they will not last good above a year; in powder only a few months. Preserve these in boxes of tin or oak, in a dry place.

3. *Seeds* ought to be fresh every year.

4. *Roots and Herbs*, if native, it is highly convenient to cultivate at home.—Herbs must be dried annually, roots preserved as directed for woods and gums.

A desideratum in veterinary medicine is the ascertaining, by direct experiment, the effects of the different articles of the materia medica upon brutes. For want of this we are led to employ, often at a great expense, medicines incapable of

acting at all, or perhaps in a very different degree, on those animals. Gibson, in his Farrier's Dispensatory, has included almost all the remedies prescribed in human diseases; but the experiments of modern veterinarians will probably reduce this list very considerably. When drugs must be had, it is prudent to purchase them at the most reputable shops, and rather to compound the articles ourselves than trust to balls, &c. sold in a prepared state.

DUBBING. Taking off the comb and gills from a game chick, before he is turned to a master-walk, is so called. The operation is performed with a penknife for the comb, and scissors for the gills; after which wash the parts with vinegar, or weak salt and water, which terminates the whole.

DUCK, WILD. Wild ducks frequent the marshy places in many parts of this kingdom; but no where in greater plenty than in Lincolnshire, where prodigious numbers are annually taken in the decoys. In only ten decoys in the neighbourhood of Wainfleet, as many as thirty-one thousand two hundred have been caught in one season.

Wild ducks are very artful birds. They do not always build their nest close to the water; but often at a good distance from it; in which case the female will take the young in her beak, or between her legs, to the water. They have been known sometimes to lay their eggs in a high tree, in a deserted magpie or crow's nest; and an instance has likewise been recorded of one being found at Etchingam, in Sussex, sitting upon nine eggs, in an oak, at the height of twenty-five feet from the ground: the eggs were supported by some small twigs, laid crossways.

DULNESS, in a horse of any tolerable spirit, may be considered an infallible sign of present disquietude, or approaching disease.

DUN BIRD, OR POCHARD. This species, like the pintail, and some others, is common both to the old and new continent. With us it frequents the fens, as well as the coasts and tide rivers; in which last it is taken sometimes extremely fat in the severest weather. It is not ascertained whether they breed in England; but in France one has been shot in the month of July. Their food is small fish and shells: they are found south as far as Egypt, about Cairo, and in Carolina, during the winter. They have a hissing voice; their flight is more rapid than that of the wild duck, and the noise made by their wings is quite different; the flocks

observe no particular shape in flying, as the duck, in triangles, but form a close body.

The pochard is about the size of a wigeon, weighs one pound twelve ounces; its length is nineteen inches; breadth, two feet and a half; the bill is broader than the wigeon's, of a deep lead colour, with a black tip; irides, orange; the head and neck deep chesnut, with a small triangular spot of white under the centre of the lower mandible; the lower part of the neck and breast, and upper part of the back, dusky black; scapulars and wing coverts nearest the body, of a greyish white, elegantly marked with narrow lines of black; the exterior wing coverts and quills, dusky brown; secondary quill feathers regularly edged with a stripe of white; the belly, ash-coloured and brown; vent feathers, and coverts of tail, black; the tail consists of twelve short feathers, of a deep grey; the legs lead-coloured. The female has the head of a pale reddish brown; the breast is rather of a deeper colour; wing coverts and belly, cinereous; the back marked like that of the male.

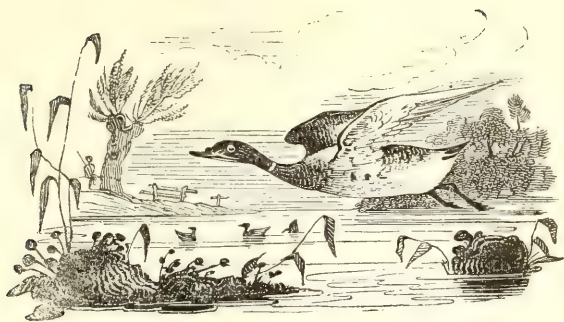
These birds are eagerly bought by the London poulterers, under the name of dun birds, as they are deemed excellent eating: the greater part of what appear in the markets are caught in decoys.

DUNG. The excrement of the horse is so called, and should be occasionally observed, as its appearance will often indicate disease. If the dung is bright in colour, the globules uniform in shape and consistence, and not foetid in effluvium, the body may be considered in good state: on the contrary, if the dung, when voided, is hard, black, and offensive, or the parts adhere to each other by a viscid ropy slime, they are equal prognostics of internal heat, foulness, and impending disquietude. Horses in this state should be put under a course of physic without delay. On an accurate inspection of the dung, worms are sometimes seen in great plenty, although, from the general appearance of the horse, no such circumstance may have been suspected.

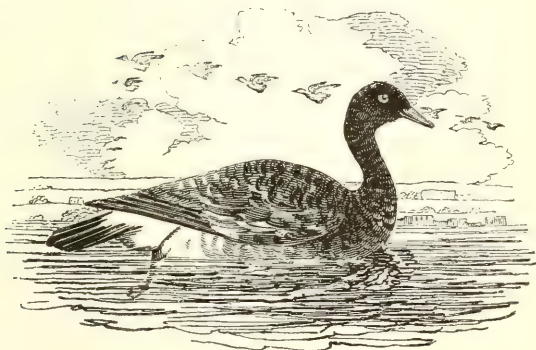
DUNGANNON. A bay horse, foaled in 1780, bred by, and the property of, Dennis O'Kelly, Esq. Dungannon was got by Eclipse, out of Aspasia, by King Herod; grandam, Doris, by Blank; great-grandam, Helen, by Spectator; great-great-grandam, Daphne, sister to Weasel, by the Godolphin Arabian, Fox, Childers, Makeless, &c.

On Wednesday, in the Newmarket Second Spring Meeting, 1783, Dungannon

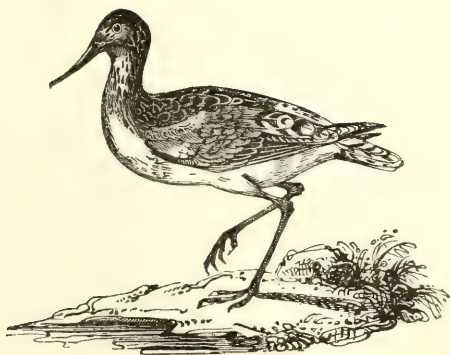
BIRDS. *Plate III.*



DUCK, WILD, *p.* 242.



GOOSE, WILD, *p.* 380.



GODWIT, *p.* 377.

won 65 gs. for 3 years old; colts, 8st. 2lb.—fillies, 8st. R. M. beating Mr. Golding's Billy, Mr. Vernon's Spot, Mr. Lade's Wilbraham, Sir F. Evelyn's Spinner, Sir J. Lade's Buzaglo, Lord Grosvenor's Inca, and three others:—5 to 4 on Dungannon, and 8 to 1 against Billy. On Saturday, at 8st. he beat Mr. Vernon's Embrio, 4 years old, 9st. 7lb. Ab. M. 100gs.—3 to 1 on Dungannon. At Epsom, May 29, he ran second (the first time of his being beat,) to Saltram, for the Derby stakes, beating Mr. Walker's Parlington, Duke of Queensberry's Gonzales, Col. O'Kelly's Cornet, and Mr. Davis's Phenomenon. At Grantham, June 19, he won the Rutland stakes, of 50gs. each, for 3 years old; colts, 8st.—fillies, 7st. 11lb. two miles, (8 subscribers) beating the Duke of Rutland's bay filly, by Herod, dam by Regulus—and Lord Grosvenor's bay colt, by Justice, out of the Flyer's dam,—Dungannon the favourite. Next day, at 7st. 4lb. he won a sweepstakes of 20gs. each, for all ages, two miles, (9 subscribers) beating Mr. Vernon's Drone, 6 years old, 9st. 6lb.; Lord Grosvenor's bay colt, by Justice, 3 years old, 7st. 4lb.; and Mr. Douglas's bay colt, by Herod, 3 years old, 7st. 4lb.—7 to 4 and 2 to 1 on the field. At Newmarket July meeting, at 8st. 2½lb. he received 60gs. from Mr. Gowland's Spinner, 7st. 11lb. Ab. M. 100gs.: next day, he won £50, with 20gs. added, for 3 years old; colts and fillies, 8st. each, the last mile and a distance of B. C. beating Mr. Davis's Buzaglo, Mr. Golding's Billy, Lord Egremont's Bonduca, Lord Grosvenor's Armida, Lord Clermont's Furioso, Duke of Queensberry's Pleasant, and two others:—3 to 1 on Dungannon, and 5 and 6 to 1 against Billy.

At Newmarket first spring meeting (on Tuesday), 1784, Dungannon won a sweepstakes of 100gs. each, h. ft. 8st. D. I. (6 subscribers,) beating Lord Clermont's George:—5 to 1 on Dungannon. On Thursday, he won a subscription of 25gs. each, for 4 years old colts, 8st. 7lb. D. I. (3 subscribers) beating Lord Grosvenor's bay colt, by Herod:—15 to 1 on Dungannon: next day, at 8st. he was beat by Mr. Bullock's Buzaglo, 8st. D. I. 200gs.:—7 to 2 on Buzaglo. On Wednesday, in the second spring meeting, at 7st. 2lb. he won the renewed subscription of 140gs. B. C. beating Lord Egremont's Mercury, 6 years old, 8st. 12lb. and Lord Clermont's Dictator, aged, 9st. 2lb.—7 to 4 on Dungannon, and 2 to 1 against Mercury. On Saturday, he beat Buzaglo, 7st. 7lb.

each, New Flat, 200gs.—3 to 1 on Dungannon. At Grantham, June 23, he won a sweepstakes of 10gs. each, with 20gs. added, for colts, 8st. 7lb.—fillies, 8st. 3lb. four miles (5 subscribers), beating Duke of Rutland's bay filly, by Herod, dam by Regulus:—3 to 1 on Dungannon: next day, he walked over for a sweepstakes of 10gs. each, with 20gs. added, four miles, (7 subscribers). At Nottingham, August 3, he walked over for £50, two-mile heats: next day, he walked over for a sweepstakes of 25gs. each, for colts, 8st. 7lb. twice round (12 subscribers). At Doncaster, September 29, he was beat by Sir J. Kaye's Phenomenon, for the gold cup, beating Mr. Crowle's Miss Rose.

At Newmarket first spring meeting (on Monday), 1785, Dungannon won the Craven stakes of 10gs. each, for all ages, 2 year olds, 6st.—3, 8st.—4, 8st. 9lb.—5, 9st. 1lb. A. F. (13 subscribers), beating Prince of Wales's Saltram, 4 years old; Mr. Wentworth's Mayfly, 5 years old; Mr. Bullock's Plutus, 5 years old; Mr. Naper's Punch, 4 years old; Sir J. Moore's Melon, 2 years old; Duc de Chartres's bay filly, by Prize, 2 years old; Duke of Grafton's Grasper, 2 years old; Mr. Wyndham's Partisan, 3 years old; Duke of Queensberry's Fortunatus, 4 years old; Lord Egremont's Brighton, 3 years old; and Duke of Northumberland's Young Denmark, 3 years old:—5 to 4 on Dungannon, 5 to 1 against Plutus, 8 to 1 against Brighton, 10 to 1 against Duc de Chartres's filly, and 12 to 1 against Punch. On Wednesday, he walked over for £50, D. C. In the second spring meeting, at 8st. 4lb. he won the renewed 140gs. B. C. beating Mr. Naper's Mountebank, 6 years old, 8st. 12lb.—10 to 1 on Dungannon. At Epsom, May 7, at 9st. he won the town purse of £50, two-mile heats, beating Lord Grosvenor's Roundelay, 3 years old, 6st.; Mr. Belson's Chance, 5 years old, 9st.; and Mr. Dutton's Mountebank, 6 years old, 9st. 4lb.—5 to 2 and 3 to 1 on Dungannon. At Burford, August 10, he won the king's purse, of 100gs. for 5 year olds, 9st. each, three-mile heats, beating Sir J. Lade's Punch, and Mr. Belson's Chance. On Wednesday, in the Newmarket second October meeting, he walked over for the 140gs. subscription, B. C. (7 subscribers): next day, at 8st. 5lb. he won 70gs. for all ages, B. C. beating Mr. Wyndham's Drone, aged, 9st.; Mr. Vernon's Harold, 4 years old, 7st. 4lb.; and Lord Grosvenor's Balance, 5 years old, 8st. 5lb. 7 to 4 on Dungannon. On Thursday, in

the second October meeting, at 8st. he won 60gs. for all ages, D. I. beating Prince of Wales's Ulysses, aged, 8st. 6lb. and Lord Grosvenor's Latona, 6 years old, 8st. 4lb.—10 to 1 on Dungannon. On Saturday, he walked over a sweepstakes of 5gs. each (14 subscribers), B. C.

At Newmarket first spring meeting, 1786, Dungannon, 8st. beat H. R. H. the Prince of Wales's Rockingham, 7st. 8lb. B. C. 500gs.—2 to 1 on Dungannon. In the second spring meeting, at 8st. 12lb. He won the 140gs. subscription, B. C. beating Duke of Grafton's Oberon, 4 years old, 7st. 2lb.—7 to 2 on Dungannon. In the first October meeting, he won the king's purse, of 100gs. for 6 year old horses, &c. 12st. each, R. C. beating Lord Clermont's George, Mr. Hull's Quibbler, and Mr. Baldock's Fortunatus—3 to 1 on Dungannon. In the second October meeting, he won the whip, and 200gs. each 10 st. B. C. beating Mr. Wyndham's Drone, aged—Prince of Wales's Anvil, aged, paid —5 to 4 on Dungannon. The above were the only times of his starting. He was afterwards a stallion.

Dungannon covered at Epsom, Surrey, in 1788, 1789, at 26gs.; at Cannons, Middlesex, 1790, 1791, 1792, 1793, at 21gs.; 1794, 1795, 1796, at 16gs.; 1797, 1798, 1799, 1800, 1801, 1802, at 12gs. and a half; 1803, 1804, at 10gs. and a half. He died in 1808. He was sire of the following winners, viz.—

<i>Horses', &c. Names.</i>	<i>Proprietors.</i>
Bandalore	Mr. Corrie,
Bedford	Lord Grosvenor,
Billy	Mr. Cookson,
Boaster	Mr. Golding,
Bragger	Ditto
Cannons	Mr. Smith,
Caroline	Ditto
Cinderella	Prince of Wales,
Clementina	Lord Sherborne,
Delpini	Mr. Harris,
Dispute	Mr. Sutton,
Edgar	Lord Sondes,
Equity	Sir H. Featherstone,
Fancy	Mr. Vernon,
George	Lord Stamford,
Griffin	Lord Lowther,
Hambleton	Mr. Hutchinson,
Hop-picker	Mr. Baldock,
Inferior	Mr. Harris,
Little Devil	Mr. Smith,
Lurcher	Mr. Wilson,
Minimus	Lord Lowther,
Miss Totteridge	Mr. Bott,
Oatlands	Mr. Lade,

<i>Horses', &c. Names.</i>	<i>Proprietors.</i>
Omen	Mr. Hay,
Outcast	Mr. Vernon,
Parrot	Sir C. Bunbury,
Pastor	Mr. Campbell,
Pensioner	Mr. Broadhurst,
Piercer	Lord Grave,
Planet	Sir G. Armetage,
Ploro	Mr. Corbet,
Sybil	Mr. J. Smith,
Totterella	Mr. Bott,
Totteridge	Ditto
Trial	Mr. Symond,

besides several others.

Dungannon was grandsire of many capital racers, and from his blood have descended a great many of the best and most favourite horses of their years.

Aspasia (dam of Dungannon), bred by the Duke of Ancaster, was foaled in 1775. She was also the dam of Mr. O'Kelly's bay colt, Sergeant, by Eclipse, foaled in 1781, and H. R. H. the Prince of Wales's Cheyt Sing, by Eclipse or Vertumnus, foaled in 1786.

DYSENTERY, a violent purging, accompanied with blood in the stools. All fluxes of the belly, in horses and other cattle, are generally included under the names of a lax and scouring, or dysentery. When a horse falls a purging, and continues but a short space in it, or when he is more than ordinarily open, and dungs like a cow, it is called a lax; and when the purging continues, though it amounts to what we call a *diarrhœa* in men, he is only said to scour. As to a dysentery, when blood and slime come away with the excrements, it is a symptom that seldom happens, except when a horse has been wounded in the intestines, or has received some uncommon treatment, such as violent and repeated drastic purges; but it is seldom, if ever, the mere effect of a *diarrhœa*. That horses are not subject to dysentery, Gibson supposes, may be owing, in a great measure, to their horizontal position, whereby the rectum is less apt to be affected in severe purgations than it is in men. Besides, he observes, the violent gripings, that are almost always the concomitants of a *diarrhœa*, soon destroy a horse, if they are not removed: so that the disease seldom has time to arrive at the state of a dysentery or bloody flux. The remedies directed under *diarrhœa*, with some variations which will occur to the practitioner, may be rendered applicable to cases of dysentery.



E

EARS. As the ears constitute much of the beauty of a horse, according as they are well or ill shaped, so from their situation, they are sure to become early objects of observation. If they are small, soft and fine, curving inward in a small degree at the point, perfectly erect, and spirited in action, they give the animal a very noble, majestic, and commanding aspect: on the contrary, when a horse points his ears forwards, he bears the appearance of looking eternally for mischief, and always preparing to start at every object he meets, which is no very pleasant sensation to the rider. Horses of this description have seldom good eyes. Horses having coarse, long, foul ears, set on too low, and hanging down on the sides, are called mule or lop-eared horses. The greater part of the racing stock of Old Herod, one of the best stallions ever bred in England, were foul, long, and wide in their ears, which is to be seen in almost the whole of their progeny.

Pain in the ear of a horse is discoverable immediately by its flaccidity, and painful deprivation of erection. The ear lays nearly flat either one way or another; the horse is almost every minute giving violent shakes of his head, which he as constantly leaves hanging down on the side affected; from which circumstances alone the seat of pain may with certainty be ascertained. Pains in the ear may arise from various causes, as colds, blows, the insinuation of, or sting from, forest flies, bees, wasps, or hornets. If the first is known to be the cause, the stimulus excited by mildly rubbing the inside with the half of a newly-divided onion, will soon relieve the pain. If from a blow, rubbing the ear inside and out with two table spoonfuls of camphorated spirits, mixed with two tea spoonfuls of extract of saturn, will relieve. If from a sting, a plentiful impregnation of fine olive oil, to give the skin the power of expansion, will be right in the moment of increasing inflammation; after which, the swelling may be allayed with common white wine vinegar, verjuice, or strong vegeto-mineral water.

Trimming the ears on the inside is a very common, but an injudicious, practice. Care should be taken never to let it be done during rainy weather, sharp and severe winds, or in the winter season; dreadful colds, as well as dangerous dis-

eases, have often been produced by these means. The operation of trimming should be performed in warm, open, mild weather, and with scissors in preference to the flame of a candle; which, with the additional use of the twitch, only serves to put the poor animal to a double degree of unnecessary misery. After the ears are trimmed, they may be rubbed over the inside with a small quantity of fresh butter, or a piece of fine linen impregnated with olive oil, both of which are excellent preventatives to cold after the operation.

EARTH. When a pursued fox takes refuge under ground, if it be in a sough, drain, &c. he is said to have *gone to ground*; but if he make his way into a regular earth, he is then said to have *gone to earth*.

EARTH-STOPPER is an indispensable part of a fox-hunting establishment, whose business is principally performed by night. His department is to visit and stop the strongest earths in the district intended to be hunted on the following day. This is usually effected between the hours of ten at night and four in the morning, by means of bushes, brambles, earth, &c. to furnish which, he is provided with a hand-bill, spade, candle and lantern, a hardy rough pony, terriers, &c. It is also his business to re-open the earths after the sport of the day, that the foxes may not fall victims to other modes of destruction.

ECLIPSE was bred by the Duke of Cumberland, of Culloden memory, and was foaled in 1764, during the great eclipse, whence his name. He was got by Marske, out of Spiletta, and might be said to unite the blood of the Darley and Godolphin Arabians. Eclipse was supposed to be a shade inferior in speed for a short distance to Flying Childers, but superior in powers of continuance, and consequently able to run greater lengths in a shorter space of time. Eclipse had considerable length of waist, and stood over a great deal of ground; his shoulder was thick, but wide and well placed; his hind quarters appeared higher than his fore-hand; in his gallop he went in the true racing form, and no horse ever, perhaps, drew up his hind legs so effectively; he possessed a vigorous constitution, uncommon strength, and was altogether the most complete racer that ever appeared, though he was thick winded, and breathed

hard when running: his colour, chesnut, with a white face and white hind leg.

At the decease of the Duke of Cumberland, he was purchased by Mr. Wildman, for 70 or 75 guineas. Some time afterwards, Mr. Wildman sold the half of him to Mr. O'Kelly for 650 guineas, and the latter gentleman ultimately purchased the other half for 1100 guineas. Eclipse did not appear upon the course until he was five years old. He won eleven king's plates, carrying 12 stone in all but one; and his proprietor acknowledged that he gained £25,000 by him. He was rather a sulky-tempered animal, but won every race in which he appeared without the application of either whip or spur, and was never distressed by the speed of a competitor. The progeny of Eclipse, in twenty-three years, produced to their owners the sum of £158,047: various prizes not included.

If we except Flying Childers, nothing has been seen on the turf that would bear a comparison with Eclipse. He may be regarded as the perfection of the race-horse; and, as in cases of a similar kind, the difficulty, if not impossibility, of continuing the pinnacle of perfection, may be easily perceived, from the circumstance, that, in defiance of every possible care and attention, a second Eclipse has never been produced.

The heart of Eclipse weighed nearly fourteen pounds, which is one-third heavier than what the same part is usually found. His form altogether, for motion and continuance, was superior to what has ever been witnessed, either before or since.

In 1769, when five years old, he won two 50gs. at Epsom; 50, at Ascot Heath; the king's 100gs. and 50, at Winchester; the 100gs. the bowl, and 30gs. at Salisbury; and the king's 100gs. at Canterbury, Lewes, and Lichfield.

In 1770, he received forfeit 600gs. and won the king's 100gs. at Newmarket; the king's 100gs. at Guildford; the same at Nottingham; the same, and 319gs. at York; the king's 100gs. at Lincoln; 150gs. and the king's 100gs. *again* at Newmarket, where, orders having been privately given by his owner, "to go off at *score*," he double-distanced his opponents, and was then taken out of training for want of a competitor. From this time he continued as a stallion at Epsom, in Surrey, and afterwards at Cannons, the seat of Colonel O'Kelly, in Middlesex, where he

died on the 27th of February, 1789, in the 26th year of his age.

He was sire of Firetail, Soldier, Corporal, Sergeant, Don Quixote, King Fergus, Nina, Charlemont, Competitor, Gunpowder, Hidalgo, King Hermon, Meteor, Pegasus, Scota, Serpent, Squeak, Stripling, Devi Sing, Eliza, Poor Soldier, Big Ben, Spitfire, Fair Barbara, Adonis, Mercury, Lily of the Valley, Volunteer, Bonnyface, Jupiter, Venus, Antiochus, Dungannon, Maria, Henley, Soujah ul Dowlah, Grimalkin, Dian, Thunderbolt, Lightning, Spinner, Horizon, Miss Hervey, Plutus, Pluto, and Comet; exclusive of a great number of winners.

EEL, THE. In the early ages of our history we find the eel considered as a rarity. Will. de Aislebury was invested with certain lands in Bucks, by William the Conqueror, under the singular tenure of providing straw for his bed and chamber, and three eels, for his use in winter.

Becket, about the year 1160, gave five pounds (equal nearly to fifty pounds of our present money) for a single dish of eels.

The eel (says Mr. Pennant) is singular in several matters relating to its natural history, and in some respects borders on the reptile tribe; the eel is known to quit its element, and, during the night, to wander along the meadows, not merely for change of habitation, but also for the sake of prey, feeding on the snails in its passage: during winter it beds itself in the mud and continues torpid like the serpent kind, is very impatient of cold, will eagerly seek shelter in a wisp of straw flung into a pond in severe weather; and which has sometimes been practised as a method of taking them. Albertus goes so far as to say that he has known eels, for warmth, betake themselves to a hay-rick; yet even there the excess of cold has destroyed them.

Mr. Arderon says, that in June 1746, while he was viewing the flood-gates belonging to the water-works of Norwich, he observed a great number of eels sliding up them, and up the adjacent posts, to the height of five or six feet above the surface of the water. They ascended with the utmost facility, though many of the posts were perfectly dry and smooth. They first thrust their heads and about half their bodies out of the water, and held them against the wood-work for some time; Mr. A. imagines until they found the viscosity of their bodies sufficiently thick, by exposure to the air, to

support their weight. They then began to ascend directly upwards, and with as much apparent ease as if they had been sliding on level ground: this they continued until they had got into the dam above.

The ancients adopted a most wild opinion about the generation of these fish, believing them to be either created from mud, or that the scrapings of their bodies, which they left on the stones, were animated and became young eels. As to their immediate generation, it has been amply proved to be effected by the ordinary course of nature, and that they are viviparous; many persons have convinced themselves of the fact, by opening and taking from the eel a small soft whitish substance, knotted curiously together: upon being put into water this has separated, and the young eels were perfect, and, though not bigger than a small thread, have swam about; this discovery always took place the end of summer, or beginning of autumn, and has been adduced as a confirmation of their going down to the salt water to spawn: those that remain in the rivers, or that have been carried by floods into rivulets and ditches, of which some are to be found at all times, produce their young in the same way.

It had been generally imagined that the eel had no scales until they were discovered by the microscope, when if the slime be wiped clean away, by the aid of that instrument, the skin will be found covered with exceeding small ones, ranged in a very orderly manner. To obtain these from the skin, take a piece of the skin which grows from the side of the eel, and while moist spread it on a piece of glass, that it may dry very smooth: when thus dry it will appear all over dimpled, or pitted by the scales, which lie under a sort of cuticle, this thin skin may be raised with the sharp point of a pen-knife together with the scales, which will then easily slip out. It has been asserted, from trials of this nature, that very few fishes, except such as have shells, are destitute of scales.

A very accurate and ingenious observer has thus mentioned his remarks upon the migration, &c. of eels.

There is (says this gentleman) one other fish common in this country that is migratory, when in a situation to admit of it: this is the eel. Eels can live and breed in stagnant ponds from which there is no outlet, as carp, tench, and several other fishes do; but whether they ever

there attain the same perfection as under other circumstances may, perhaps, be doubtful. In what place the eel deposits its young in preference to others, when at perfect freedom; or whether the young fry make a progression towards the sea, as the salmon does at a certain period of its growth, I cannot tell. But in one particular case I know, and it has been observed by others, that in the month of June, yearly, immense swarms of young eels make a progress from the lower part of the river towards the higher, with a quickness and unremitted assiduity that are surprising. This phenomenon was remarked in the river Dee, in Aberdeenshire. The eel is a fish that seems (unlike the trout) to dislike running streams, and therefore avoids that part of the river where the current is strong. It had probably been this circumstance that induced them, in the rapid Dee, to direct their progress only along the edges of the river close to the banks.

A line followed the windings of the river, being often suddenly deflected by stones or other interruptions without any breach of its continuity. This line having frequently caught my eye, my hand was put into the water to touch the line, with a view to examine what it was: the line became discontinued, when my hand approached; but it united again as soon as my hand was withdrawn. This induced a nearer examination; and I then perceived, with astonishment, that this line was formed by a series of small eels, moving forward with great celerity. These eels did not exceed half an inch in length, but were in all respects perfectly formed like the common eel. The line might, perhaps, on an average, consist of from twenty to thirty in breadth, and the individuals being in different degrees of forwardness, and close to each other, made the line uniform. The progress with which they advanced, was not less than four miles an hour: and this continued for eight days and nights together; and there was no apparent diminution of it when I left the place. There was a similar line on the opposite side of the river. The water in which they floated at the place where I observed them was in general about two or three inches deep.

From the above statement, it may safely be computed that the numbers which must have thus passed amounted to many myriads. What becomes of such multitudes of fishes we may conjecture, but

never, perhaps, shall be able to ascertain.

The above observations (continues this gentleman) respect the spontaneous movements of eels upwards in rivers; those that follow indicate their similar progress downwards at one season of the year. In Scotland, in the neighbourhood of Linlithgow, is a considerable lake, in which great quantities of eels are caught, by hooks and lines during any of the summer months; but the principal fishing is in the month of October, when it is found that the eels, directed by natural instinct, discover an irresistible propensity to issue from the loch by the passage through which the water flows from it to the sea. In October the person who rents the fisheries puts into that passage a kind of chest, so formed as to allow free passage to the water, while it stops those eels that exceed a certain size. This chest is every morning emptied of its fish, which are sometimes in such abundance as to require carts to carry them away. This fishing continues about a month; before or after which time few or none can be so taken; the chest is then removed, and the passage left free.

In Wiltshire, about Warminster, where the rivers are small and more rapid in their course than in many other parts of England, the mills placed on the streams are numerous, and the water is carefully directed into one channel. The persons possessing these mills having discovered that numbers of eels go down the river every flood, happening in October, have devised a box, which they call an eel grate; this is placed in a convenient part of the river, and thus great quantities of eels are caught. They also find, that no eels worth mentioning can be taken in this way at any other season of the year.

Whether the eels thus caught in descending the river are near the breeding time, as the salmon are which ascend the same small streams, has not been ascertained. Probably they are; if so, they are not, like the salmon, lean, but fat, and in good condition. It is probable that these eels, after depositing their young near the mouths of the rivers, ascend the rivers again at another season of the year, till they regain their former haunts, although there are not the same facilities for discovering their progress upward, were it even certain, as for that in their descent. They may have been at first entangled in their descent in baskets or nets whose mouths were placed towards

the current. This could not be done in their ascent; and although devices called cruives have been invented for catching salmon in ascending the rivers, yet the progress of eels in that direction having not been remarked, no contrivance for thus catching them has been devised.

It might be possible, by watching the time the large eels return, to devise contrivances for stopping them in their ascent, somewhat similar to the salmon cruives, which might be done at a trifling expense, upon those small rills especially that communicate with swamps or lakes; for though the banks were overflowed during floods, yet, if these eel-traps occupied the full width of the rill, when in its usual state, no loss could be sustained during floods, as the strength of the current would at that time interrupt their progress upwards. It is very probable, that if the large eels do return, they may do it more leisurely than they descend, especially where the water runs dead; therefore, in brisk running streams, we shall most likely discover the circumstances that affect these migrations.

The eel is placed by Linnæus in the genus of *muræna*, his first of the apodal fish, or such as want the ventral fins; the eyes are placed not remote from the end of the nose; the irides are tinged with red; the under jaw is longer than the upper; the teeth are small, sharp, and numerous; beneath each eye is a minute orifice—at the end of the nose, two others. The eel is furnished with a pair of pectoral fins, rounded at their extremities; behind which is the orifice to the gills, which are concealed in the skin; another fin on the back, uniting with that of the tail, and the anal fin, joins it beneath in the same manner.

Eels vary much in their colours, from a sooty hue, to a light olive green; and those which are termed silver eels, have their bellies white, and throughout a remarkable clearness. There is another variety of this fish, known in the Thames by the name of grigs, and about Oxford by that of grigs or gluts. These are scarcely ever seen near Oxford in the winter, but appear in spring, and bite readily, which the common eels in that neighbourhood will not: they have a bigger head, a blunter nose, thicker skin, and are less fat, than the common sort—are in less estimation, and seldom exceed three or four pounds weight. The black eel has a large head, a black back, and yellow belly; the flesh is reckoned un-

wholesome, especially when taken out of mud in standing waters. The Italians have the following proverb,—“Give eels and no wine to your enemies.”

The common eel will grow to a large size, sometimes to weigh twenty pounds, but that is extremely rare; in 1799 one was taken out of the Kennet, near Newbury, which weighed fifteen pounds. Walton mentions one caught near Peterborough, which was a yard and three-quarters in length.

No fish lives so long out of water as the eel; so tenacious of life is it, that the parts will move a considerable time after they are flayed and cut into pieces.

They are extremely voracious, and most destructive to the spawn and small fry of fish; and Sir John Hawkins has spoken *feelingly* of their depredations not being confined to the young of *fish* only, for his broods of *ducklings* were all secured under water, by the large eels with which his canal abounded.

Congers differ from the common eel in the following particulars. Their colour in general is more dark; their eyes much larger in proportion; the irides of a bright silvery colour. The lower jaw is rather shorter than the upper. The side line is broad, whitish, and marked with a row of small spots—Mr. Ray says a *double* row. The edges of the dorsal and anal fins are black. They have more bones than the common eel, especially along the back quite to the head. As to the distinction that Mr. Ray and other writers make of the small beards at the end of the nose, it ought not to be depended upon, they being sometimes found in both kinds, and sometimes entirely wanting. They grow to a much greater size. Dr. Borlase assures us, that they are sometimes taken near Mount's Bay, of one hundred pounds weight. Some taken near Scarborough were ten feet and a half long, and eighteen inches in circumference at the thickest part.

Mr. Pennant believes that the congers generate like the fresh water species: innumerable quantities of what are supposed to be their fry, come up the Severn about the month of April, preceding the shads, which it is conjectured migrate into the river to feed on them.

Congers are extremely voracious, preying on other fish, and on crabs at the time they have lost their shell, and are in a soft state. They and eels in general are also fond of carcasses of any kind, being frequently found lodged in such as are accidentally taken up.

Mr. Pennant remarks, that a fishery of congers would be of great advantage to the inhabitants of the Hebrides. Perhaps they would at first undertake it with repugnancy, from their absurd aversion to the eel kind.

Mr. Barry in his history of the Orkney Islands, says, the conger which is about six feet long and one in circumference, frequents the seas around those isles, where it is often caught by lines set for other fishes, but much oftener by the otter, which drags it ashore, devours a part, and leaves the remainder to be picked up by carrion birds, or carried off by the country people. The common eel, continues Mr. B. is to be met with in all our brooks, lochs, and in the seas, and at certain seasons, in great plenty in the harbour of Stromness; the size is never large, seldom exceeding two feet and a half in length, and its thickness in proportion. The skin, which is of a tenacious nature, is stripped off, and worn to prevent the cramp; but the fish itself, though excellent food, is seldom brought to the table, on account of some antipathy which the people have to it.

The haunts of the eel are among the weeds, under roots, stumps of trees, in holes and clefts of the earth, both in the banks, and at the bottom in the plain mud, where they lie with only their heads out, watching for their prey; they are also to be found under great stones, old timber, about bridges, flood-gates, weirs, and old mills, except when the water is rendered thick by rains, for then they come out, and will bite eagerly. They are in best season from May until July: a running line should be used, which must be very strong, and the hook No. 3 or 4, with a plumb or pistol bullet upon it. They are to be angled for on the ground, and two or more rods may be employed: (if ground-bait be thought necessary, it should be the same as for the barbel:) the prime bait is the lobworm, and they bite eagerly all day, in dark cloudy weather, after showers, attended with thunder and lightning, when the water is high and discoloured; but those who venture upon night angling, will have far greater success when the weather is warm and the night dark; they are then to be angled for upon the shallows, where there is a current, or by the side or tail of a stream, with a sandy or gravelly bottom, with the bait on the ground; they will be felt to tug sharply when they seize the bait; give time

(which is necessary both in day and night angling,) and there will be no doubt of sport from night-fall until day-break, when they directly flee to their hiding places.

The largest eels are caught by night-lines; it is of little consequence where they are laid, as they will succeed in streams (where the eels rove in search of prey) as well as in the still, deep holes of rivers; and they will take frogs, black snails, worms, roach, dace, gudgeons, minnows, (which two last are the best) loaches, bleaks, and miller's-thumbs. A sufficient quantity of links of twelve hairs should be doubled, and a hook tied to each link; these are to be noosed at proper distances to pieces of cord of fifteen feet long; bait the hooks by making an incision with the baiting-needle under the shoulder, and thrusting it out at the middle of the tail, drawing the link after it; the point of the hook should lie upright towards the back of the bait-fish; fasten one end to the bank or a stub, and cast the other into the water, but not to the extent of the line, (as eels will run a little before they gorge:) the lines should be taken up early in the morning; such of the lines as have eels at them will be drawn very tight. Dark nights in July, August, and September, are the best for this kind of fishing. Trimmers baited with a live gudgeon are sure to be taken by eels. The wire to which the hooks are fixed should be strong and well nealed, as the eel struggles hard to free himself. Lines, with from twelve to twenty hooks looped on at different distances, will do well in streams; but for standing waters, trimmers are greatly to be preferred.

Another method of taking eels when

the water is clear and low, is called snig-gling, and is performed with a stick about a yard long, with a cleft at each end, and a strong needle well whipped to a small whipcord line, from the eye down to the middle. In baiting, run the head of the needle quite up into the head of a lob-worm, letting the point come out about the middle; then put the point of the needle into the cleft at either end of the stick, and taking both stick and line together in one hand (some of the line being wrapped round the hand,) put the bait softly into holes under walls, stones, &c. where eels hide themselves; if there be an eel there, he will take the worm and needle out of the cleft; draw back the stick gently, (having slackened the line,) and give time for his swallowing the bait; then strike, and the needle will stick across his throat; let him tire himself with tugging, previous to any attempt to pull him out, for he lies folded in his den, and will fasten his tail round any thing for his defence. The largest eels are generally taken about the hollow stonework of old bridges, (the angler being in a boat) and are sometimes caught in considerable numbers.

A third plan for taking eels, is by what is termed bobbing, which see.

ELECAMPANE, a root formerly in much estimation for its efficacy in coughs and disorders of the breast and lungs; hence the reputation it has attained in pectoral compositions for the use of horses. The great difficulty, however, of procuring any thing like the genuine root in powder from the medical retail shops, must ever prevent any great gratification or expectation, to those who rely too much upon the properties it is said to retain.

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to be incapable of rendering each other any requisite assistance. Nothing can be more formidable than a drove of elephants as they appear at a distance in an African landscape ; wherever they march the forest seems to fall before them ; in their passage they bear down the branches upon which they feed ; and if they enter an enclosure they destroy all the labours of the husbandman in a very short time. Their invasions are the most disagreeable to the natives, as they possess no means of repelling them ; since it would require a small army to attack the whole drove when united. In their retreats, however, it now and then happens that one or two linger behind the rest, and it is against these that the art and force of the hunters are united ; but any attempt to molest the whole body would certainly be fatal. The Indians and Negroes, who are often incommoded by such visitants, do all they can to keep them away, make loud noises and large fires round their cultivated grounds ; but these precautions do not always succeed ; the elephants sometimes break through their fences, destroy their whole harvest, and even overturn their little habitations. When they have satisfied themselves, and trod down or devoured whatever lay in their way, they retreat into the woods in the same orderly manner in which they made their irruption. Should any one offer to impede their progress or molest them, they go forward against the intruder, strike him with their tusks, seize him with their trunks, fling him into the air, and then trample him to pieces under their feet. But they are thus dreadful only when offended, and seldom or ever offer the least personal violence when suffered to pass without interruption.

The Elephant is a native of Africa and Asia, but is found neither in Europe nor America. In Africa he still retains his natural liberty. The savage inhabitants of that part of the world, instead of attempting to subdue this powerful creature to their necessities, are happy in being able to protect themselves from its depredations. Yet they are taken in considerable numbers in some parts of this uncivilized part of the world, principally in pit-falls, for the sake of their teeth, which are regularly brought down to the coast and exchanged for European commodities. There, during the first journey of my much lamented friend, Mungo Park, into the interior of Africa, he remarked to some of the natives the domestication of this enormous quadruped, and the useful purposes to which his extraordinary powers were applied ; they laughed in his face, and exclaimed *tababo fonio* (a white man's lie). In Abyssinia elephant hunting is followed as a diversion, as well as for the animal's flesh, which is highly esteemed by the natives. Indeed the Africans in general are fond of the flesh of the elephant, the Hottentots regard it as one of the greatest dainties, with which, however, they are seldom gratified, as, of all the natives of this barbarous quarter of the globe, none are either so ignorant or so inactive as the Hottentots. At present there are no elephants found in the northern parts of Africa. It is beyond the river Senegal that they are to be met with in great numbers, and so down to the Cape of Good Hope, as well as in the heart of the country. In this extensive re-

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gion they appear to be more numerous than in any other part of the world ; are less fearful of men, and appear as if conscious of the impotence and ignorance of the inhabitants which blacken this burning region of the world. The natives, however, take the elephant (as before observed) by means of pitfalls. Through the woody forests several paths are cut ; in which are dug deep and large holes, which are carefully covered over with branches and loose earth.

“ With slender poles, the wide capacious mouth,
And hurdles light, they close ; o’er these is spread
A floor of verdant turf, with all its flow’rs
Smiling delusive, and from strictest search
Concealing the deep grave that yawns below.
Then boughs of trees they cut, with tempting fruit
Of various kinds surcharged ; the downy peach,
The clust’ring vine, and of bright golden rind
The fragrant orange. Soon as ev’ning grey
Advances, slow besprinkling all around
With kind refreshing dews the thirsty glebe,
The stately elephant, from the close shade,
With step majestic, strides ; eager to taste
The cooler breeze that from the sea-beat shore
Delightful breathes, or in the limpid stream
To lave his panting sides ; joyous he scents
The rich repast, unweeting of the death
That lurks within. And soon he sporting breaks
The brittle boughs and greedily devours
The fruit delicious.—Ah ! too dearly bought ;
The price is life. For now the treacherous turf
Trembling gives way ; and the unwieldy beast,
Self-sinking, drops into the dark profound.”

But although these animals are most plentiful in Africa, it is in Asia that the largest elephants are found : in the former place, they seldom exceed ten feet in height, while in the latter they are frequently seen from twelve to fifteen.

The wild elephants of Ceylon live in troops or families, distinct and separate from all others, and seem to avoid the strange herds with particular care. When a family removes from one place to another, the largest tusked males put themselves at the head ; and, if they come to a river, are the first to pass it. On arriving at the opposite bank, they try whether the landing place is safe : if it is, they give a signal with their trunk, on which another division of the old elephants swim the river : the younger then follow, supporting each other by locking their trunks together ; and the rest of the old ones bring up the rear.

At Tepura, in the East Indies, elephant hunting is followed as a source of profit ; or, in other words, many are here caught for the purpose of reducing them to obedience, and afterwards to employ them as beasts of burden or labour. As the hunters know the places where the elephants come out to feed, they advance towards them in the evening with four komkees, (the number of which each hunting party consists.) When the nights are dark, the male elephants are discovered by the noise they make in cleaning their food, which they

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do by whisking and striking it against their fore legs; and in moonlight nights may be seen distinctly at some distance. As soon as the hunters have determined on the animal they mean to secure, three of the komkees are conducted silently and slowly, at a little distance from each other, near to the place where he is feeding. The komkees (trained female elephants) advance very cautiously, feeding as they go along, and appear like wild elephants that have strayed from the forest. When the male perceives them approaching, if he takes the alarm and is viciously inclined, he beats the ground with his trunk and makes a noise, shewing evident marks of his displeasure, and that he will not allow them to approach nearer. In this case, if they persist, he will immediately attack and gore them with his tusks; for which reason they take care to retreat in good time. He, however, generally allows them to approach, and sometimes even advances to meet them. The drivers now conduct two of the females, one on each side, close to him, and make them press themselves gently against his neck and shoulders; the third female then comes up and places herself across his tail. In this situation, far from suspecting any design against his liberty, he begins to toy with the females and caress them with his trunk. While thus engaged the fourth female is brought near, attended by proper assistants, furnished with ropes, who immediately get under the belly of the animal at the tail, and put a small rope round his hind legs. If he takes no notice of this slight confinement, the hunters proceed to tie his legs with a stronger rope, which is passed alternately, by means of a forked stick and a kind of hook, from one leg to the other, in the form of a figure of 8. Six or eight of these ropes are generally employed one above another, and they are fastened at their intersections by another rope that is made to pass perpendicularly up and down. A strong cable with a running noose, sixty cubits long, is next put round each hind leg, above the other ropes; and afterwards six or eight other ropes are crossed from leg to leg above the cable. Fixing these ropes generally occupies about twenty minutes, during which time the utmost silence is observed.

The komkees now retire to a little distance, and the animal attempting to follow them, and finding his legs tied, immediately becomes sensible of his danger, and makes, as fast as he can, towards the jungle. The hunters, mounted on the tame elephants, accompanied by a number of people, who till this time have been kept out of sight, follow him at a little distance, and as soon as he passes near a tree sufficiently stout to hold him, they take a few turns with the long cable, which trailed behind him, round its trunk. His progress being thus stopped, he becomes furious, and exerts his utmost efforts to disengage himself. The komkees dare not now come near him; and in his fury he falls down on the earth, and tears it up with his tusks. In these exertions, he sometimes breaks the cables and escapes into the thick jungle. Hither the hunters dare not follow him for fear of the other wild elephants; and are therefore obliged to leave him to his fate. This, however, seldom happens; and when he has exhaust-

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ed himself by his exertions, the komkees are again brought near and take their former positions, one on each side and the other behind. After getting him nearer the tree, he is more securely fastened :—his fore legs are now tied in the same manner as his hind legs were; and cables are made fast, one on each side, to trees, or stakes driven deep in the earth.

As soon as he has become more settled, and will eat a little food, the komkees are again brought near, and a strong rope is then put twice round his body, close to his fore legs like a girth, and tied behind his shoulder; the end is then carried backward close to his rump, and there fastened, after a couple of turns more have been made round his body. Another rope is next fastened to this, and thence carried under his tail like a crupper, and brought forward and fastened to each of the girths. A strong rope is now put round his buttocks, and fastened on each side to the girths and crupper, so as to confine the motion of his thighs and prevent him from taking a full step. A couple of large cables, with running nooses, are now put about his neck, there secured, and tied to the ropes on each side. Thus completely hampered, the cables round his neck are made fast to two komkees, one on each side.—Every thing being now ready and a passage cleared from the jungle, all the ropes are taken from his legs, except the strong one round his buttocks to confine the motion of his hind legs, which is still left. The komkees pull him forward; sometimes, however, not without much struggling and violence on his part. When brought to his proper station and made fast, he is treated with a mixture of severity and gentleness; and generally in a few months becomes tractable, and perfectly reconciled to his fate. It seems somewhat extraordinary, that though the animal uses his utmost force to disengage himself when taken, and would kill any person coming within his reach, yet he seldom or never attempts to hurt the females that have ensnared him; but, on the contrary, seems (as often as they are brought near in order to adjust his harnessing, or move or slacken those ropes which gall him) pleased, soothed, and consoled by them, as it were, for the loss of his liberty.

The mode of securing a herd of wild elephants is very different, as well as more tedious, than that adopted in the capture of a single male.

A herd of elephants generally consists of from forty to a hundred; and when it is intended to take a whole herd, as soon as it is discovered, about five hundred people are employed to surround it. By means of fire and noises, the hunters are, in the course of some days, able to drive them to the place where they are to be secured. This is called the Keddah. It consists of three inclosures, communicating with each other by means of narrow openings or gateways. The outer one is the largest, the middle the next in size, and the third or furthestmost the smallest. When the animals arrive near the first inclosure (the palisadoes and gates of which are as much as possible disguised with branches of trees and bamboos stuck in the ground, so as to give them the appearance of a natural jungle) great difficulty attends the business of getting them in. The leader always suspects

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some snare, and it is not without the utmost hesitation that he passes ; but as soon as he enters all the rest implicitly follow. Immediately when they have passed the gateway, fires are lighted round the greater part of the inclosure, particularly at the entries, to prevent the elephants from returning. The hunters from without then make a terrible noise by shouting, beating of tomtoms (a kind of drum), firing blank cartridges, &c. to urge them on to the next inclosure. The elephants, finding themselves entrapped, scream and make other noises ; and discovering no opening except the entrance to the next inclosure, they at length, but not before they have many times traversed round their present situation, following their leader, enter it. The gate is instantly shut upon them, fires are lighted, and the same discordant noises made as before, till they have passed through another gateway into the last inclosure, where they are secured in a similar manner. Being now completely surrounded on all sides, and perceiving no outlet through which they can escape, they appear desperate, and in their fury advance frequently to the surrounding ditch in order to break down the palisade, inflating their trunks and screaming out aloud : but wherever they make an attack, they are opposed by lighted fires, and the noise and triumphant shout of the hunters. The ditch is then filled with water, and after a while they have recourse to it in order to quench their thirst and cool themselves, which they do by drawing the water into their trunks, and then squirting it over every part of their bodies.

After the elephants have continued in the inclosure a few days, where they are regularly, though scantily, fed from a scaffold on the outside, the door of the Roomee (an outlet of about sixty feet long and very narrow) is opened and one of the elephants is enticed to enter by having food thrown before it. When the animal has advanced far enough to allow it, the gate is shut and well secured on both sides. Finding his retreat now cut off, and the place so narrow that he cannot turn himself, he advances and exerts his utmost efforts to break down the bars in front of him, running against them, screaming and roaring most violently, and, battering them, like a ram, with repeated blows with his head, retreating and advancing with the utmost fury. In his rage he even rises up and leaps upon the bars with his fore feet, striving to break them down with his huge weight. When he becomes somewhat fatigued with these exertions, ropes are, by degrees, put round him ; and he is secured in a manner nearly similar to that adopted in taking the single males. And thus, in succession, they are all secured.

The newly-captured elephants are now separated, and each put under the care of a keeper, who is appointed to attend and instruct him. A variety of soothing and caressing arts are practised : sometimes the keeper threatens and even goads him with a long stick pointed with iron ; but more generally coaxes and flatters him, scratching his head and trunk with a long bamboo, split at one end into many pieces, and driving away the flies from his sores and bruises. In order to keep him cool, he likewise squirts water all over him ; carefully

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standing out of the reach of his trunk. In a few days he advances cautiously to his side, and strokes and pats him with his hand, at the same time speaking to him in a soothing voice; and, after a little, the animal acknowledges the authority of his keeper, and obeys his commands with a sagacity which cannot fail to astonish and please. While they are training in this manner, the tame elephants lead the others out alternately, for the sake of exercise, and likewise to ease their legs from the cords with which they are tied, and which are apt to gall them, unless they are regularly slackened and shifted.

In five or six weeks the elephant becomes completely obedient to his keeper, his fetters are taken off by degrees; and in a little time he suffers himself to be conducted from one place to another.

Tavernier, in his travels in India, tells us that he was present at the taming of two of these animals:—"After two hours' travel, we came to a great village, where we saw the two elephants that had been lately taken; each of these was placed between two tame ones. Round the wild elephants stood six men, each with a half pike in his hand, with a lighted torch fastened to the end of it, who talked to the animals, giving them meat, and calling to them in their own language '*take it, take it.*'—If the wild elephants refused to do as they were bid, the men made signs to the tame ones to beat them, which they did thus:—one of them banged the refractory elephant about the head with his trunk, and if he offered to make any resistance the other thwacked him on the other side, so that the poor animal, not knowing what to do, was at length constrained to become obedient."

It has been asserted that the sagacity of the elephant is so great, and his memory so retentive, that, when once he has received any injury, or been in bondage and afterwards escaped, it is not possible, by any art, again to entrap him. The following instances, however, recorded in the Philosophical Transactions of the Royal Society for 1799, will prove that such is not the case: A female elephant was first taken in the year 1765, by Rajah Kishun Maunnich; who, about six months after gave her to Abdoor Rezah, a man of some rank and consequence in the district. In 1767, the Rajah sent a force against this Abdoor Rezah for some refractory conduct, who, in his retreat to the hills, turned the above-mentioned beast loose in the woods, after having used her two years as a riding elephant. She was afterwards re-taken, but broke loose in a stormy night, and again escaped. In the year 1782, about ten years after her second escape, she was driven by the elephant hunters belonging to Mr. Leek, of Longford Hall, in Shropshire, into the inclosure in which the elephants are secured; and the day following, when Mr. Leek went to see the herd that had been taken, this elephant was pointed out to him by the hunters, who well recollected her. They frequently called to her by name, to which she seemed to pay some attention by immediately looking towards them when it was repeated; nor did she appear like the wild elephants, which were constantly running about the inclosure in a rage, but seemed perfectly reconciled to her situation. For the space of eighteen days she never went near

enough the outlet to be secured—from a recollection perhaps of what she had twice before suffered. Mr. Leek at length went himself when there were only herself, another female, and eight young ones remaining in the inclosure. After the other female had been secured by means of the komkees, the hunters were ordered to call on her by name. She immediately came to the side of the ditch within the inclosure ; on which some of the hunters were desired to carry in a plaintain tree, the leaves of which she not only took from their hands with her trunk, but opened her mouth for them to put a leaf into it, which they did, caressing her and calling her by name. One of the trained elephants was now ordered to be brought to her, and the driver to take her by the ear and order her to lie down. At first she did not like the komkee to go near her, and retired to a distance seeming angry : but when the drivers, who were on foot, called to her, she came immediately and allowed them to stroke and caress her as before ; and in a few minutes after, permitted the trained elephants to be familiar. A driver from one of these then fastened a rope round her body, and instantly jumped on her back, which, at the moment she did not like, but was soon reconciled to it. A small cord was then put round her neck for the driver to put his feet in ; who, seating himself on the neck in the usual manner, drove her about the inclosure in the same way as any of the tame elephants. In short she was so obedient, that, had there been more wild elephants in the inclosure, she would have been useful in securing them.

In June, 1787, a male elephant taken the year before, was traveling in company with some others, towards Chittigong, laden with baggage ; and having come upon a tiger's track, which elephants readily discover by the smell, he took fright, and ran off to the woods, in spite of all the efforts of his driver. On entering the wood, the driver saved himself by springing from the animal and clinging to the branch of a tree under which he was passing. When the elephant had got rid of his driver, he soon contrived to shake off his load. As soon as he ran away, a trained female was despatched after him, but could not get up in time to prevent his escape. Eighteen months after this, when a herd of elephants had been taken, and had remained several days in the inclosure, one of the hunters, viewing a male elephant very attentively, declared he resembled the one which had run away. This excited the curiosity of every one to go and look at him ; but when any person came near, the animal struck at him with his trunk, and in every respect appeared as wild and outrageous as any of the other elephants. An old hunter at length coming up and examining him, declared that he was the very elephant that had made his escape. Confident of this, he boldly rode up to him on a tame elephant, and ordered him to lie down, pulling him by the ear at the same time. The animal seemed taken by surprise, and instantly obeyed the word of command, uttering at the same time a peculiar shrill squeak through his trunk, as he had formerly been known to do ; by which he was immediately recognised by every person acquainted with this peculiarity.

Elephants, when hunted, endeavour to avoid muddy rivers with the greatest care, probably that they may not stick fast in the ooze ; while, on the other hand, they industriously seek out the larger rivers which they swim over with the greatest ease. For, notwithstanding that the elephant, from the form of his feet and the position of his limbs, does not seem to be adapted for swimming (when he is out of his depth in the water, his body and head being entirely sunk under the surface;) yet he is in much less danger of being drowned than many other land animals, as he carries his long trunk raised above the surface of the water in order to breathe, and can steer his course in it by means of this appendage. It has consequently been observed that when several elephants have swam over the river at the same time, they have all found the way very well ; and have been able also to avoid running foul of each other, though their heads and eyes have been all the while under water.

The elephant, during the rutting season, is seized with a madness which makes him utterly untractable, and renders him so dangerous that it is often necessary to kill him. A wild elephant will sometimes stray from the herd, become solitary and mischievous, and will kill any person who happens to come in his way. On such occasions, the inhabitants of India go out against him in great numbers, well armed ; but he seldom falls till he has received many bullets—sometimes an almost incredible number.

EMBROCATION, a name given to spirituous, volatile, or saturnine applications in a liquid form ; either as corroborants, stimulants, repellents, &c. and in most cases they are doubly efficacious, if their use is preceded by sponges dipt in a hot decoction, prepared from those garden aromatics called “ fomentation herbs.”

EMOLLIENTS, medicines which diminish the force of cohesion in simple solids, and therefore soften and diminish the hardness and rigidity of the parts to which they are applied. They not only relax and supple the solids, but also sheathe and soften the asperity of the fluids.

Emollient topics are formed of water, with oily and mucilaginous substances.—Water, particularly when assisted by a moderate heat, is plentifully absorbed from the whole surface of the body. It powerfully relaxes and dilutes, being miscible with almost every animal fluid. Oil relaxes and obtunds what is acrid ; and mucilage also sheathes sharp humours.—In compositions of this kind, the aqueous part should be freely allowed, for the mucilages require to be largely diluted ; gentle friction on the part increases their efficacy, and, as to the heat with which they are applied, it should not exceed

what produces a pleasing sensation.—From the relaxing quality of emollient topics, and their sheathing of acrimony, it is that they are good sedative applications, when pain from tension, or from irritation, is excited : from the sympathy of the nerves, their efficacy is conveyed also to distant and deep-seated parts ; and thus it is that the warm bath proves so powerful a sedative.

ENTRANCE OF HORSES, is the ceremony of entering horses (at the particular places appointed) on a certain day previous to the races at any city, borough, or town, where the plates to be run for are given and advertised.

ENTRANCE OF HOUNDS, is the introduction of young hounds to the pack, with whom, at a proper age, they are incorporated, for their initiation in the kind of chase to which they are then to become appropriated.

EPILEPSY, a disease which occurs in various animals. A horse in the epilepsy reels and staggers, his eyes are fixed in his head, he has no sense of what he is doing, stales and dungs insensibly, runs round, and falls suddenly, sometimes immoveable, with his legs stretched out, as if he were dead, except only a very quick motion of his heart and lungs, which makes him work violently at his flanks,

and sometimes an involuntary motion and shaking of his limbs. At the going off of the fit, he generally foams at the mouth; the foam is white and dry, like that which comes from a healthy horse when he champs upon his bit.

It is common in the cure, first of all to bleed; but, if the horse be low in flesh, or has come off any hard journey, or is old, this should be sparingly done. Indeed, it is altogether improper in the majority of cases: as the epilepsy is usually a disease of debility, and not, as in the apoplexy, occasioned by plethora.

The following ball may be administered, with a proper drink to wash it down:

Take of Assafoetida, half an ounce,
Castor, pounded, two drachms,
Venice turpentine, the same quantity,
Diapente, one ounce,

make them into a ball with honey, adding

Oil of amber, one drachm.

The drink is to be made as follows:

Take of Pennyroyal,
Mistletoe, of each a large handful,
Valerian root, one ounce,
Liquorice, half an ounce,

boil them in a quart of water; let it be poured off, and administered after the ball.

Let this be repeated, sometimes once, sometimes twice, a-day at first, and afterwards once in two or three days. Purges and clysters at proper intervals, to keep the body open, and prevent a relapse.

EQUERRY is an appointment in the home department of the king, under the sole direction of the master of the horse. There are five equeries, one of whom is called the first: of the other four, two are always in waiting to attend upon his majesty in every equestrian excursion, whether on the road, to the field, or in the chase.

EQUITATION. See HORSEMANSHIP.

ESCAPE. The name of a horse of great beauty, excellent symmetry, and much celebrity. He was bred by Mr. Franco, and got by Highflyer out of a Squirrel mare; he was foaled in 1785; and in the first spring meeting at Newmarket, 1789, he beat the Prince of Wales's Cantoo Baboo, over the Ditch-in, for 200 guineas. He was then purchased by his Royal Highness, and in the second spring meeting he received forfeit from Alexander and Clown, 100 guineas each. In the first October meeting of the same

year, he beat Nimble across the flat, 200 guineas. The Craven meeting, 1790, he beat Grey Diomed over the Beacon, 500 guineas; and won the great subscription purse at York, beating Actæon and Gustavus. The Craven meeting, 1791, he beat Skylark, Highlander, Glaucus, Halkin, Meteor, and Buffer, a subscription of 50 guineas each: two to one on Skylark. First October meeting the same year, he beat Grey Diomed over the Beacon course, 8st. 7lb. each, for 1000 guineas. Two days after, he beat him again for the renewed 140 guineas. In the second October meeting, he won a subscription purse (twelve subscribers) over the Beacon, beating Chanticleer, Skylark, Grey Diomed, Harpator, and Alderman, with the odds four and five to one against him. When taken out of training, he covered at Highflyer Hall at ten guineas a mare, and half-a-guinea the groom.

ESCHAR. A hard crust or scab upon the flesh, formed by the application of a red-hot iron, a caustic, or some sharp application to the body.

ESTRAY, or STRAY. Any horse, or head of cattle, which having strayed from its own home into a strange manor, or lordship, and there found without an owner, is then called an estray, or stray: in which case it is an established custom, sanctioned by law, that such stray is proclaimed, and his or her marks described, by the common crier, in the three next nearest towns on the market-day; and if the stray is not claimed within a year and a day of the time on which it was publicly cried, and fully described, it then becomes the property of the lord of the manor where it was found. If the owner makes the claim within the time limited, he is liable to pay reasonable charges for finding, keeping, proclaiming, &c. An estray must be kept without labour, uninjured, and properly fed, till reclaimed, or the time above-mentioned is expired.

EVACUANTS. Such medicines as, by their stimulus, augment the excretions of the body. Thus purgatives, sudorifics, diuretics, &c. may be called evacuants.

EVACUATION. Any diminution of the animal fluids, whether it be by cathartics, blood-letting, or any other means.

EXERCISE. By exercise I mean only in regard to such horses as are allowed to stand too much at rest in the stable, and at the same time are full fed, and breathe constantly a hot foul stag-

nated air in close stables; the whole of what is here advanced being calculated to promote the health and soundness of horses, by recommending such precepts as may contribute to preserve them in a proper habit of body, and render them fit for active exercises, in order that they may perform them with ease and freedom to themselves, and with pleasure to their owners. At the same time, it will show how much it is the interest of those who keep horses, and wish to have them in health, &c. to attend particularly to this important article.

It will perhaps appear strange at first view, to assert that a much greater number of horses who are high fed, and stand much at rest in close warm stables, die of diseases which are brought on them from the want of regular exercise, especially in great towns, than from any other class of diseases to which they are liable.

Horses are formed for labour. Inactivity renders them unfit for it; and, at the same time, it is hurtful to their health, in a variety of respects.

Inactivity, with full feeding, renders the body dull and sluggish. The stomach is loaded with food, which it cannot properly digest. The food is detained too long in the bowels. Hence indigestion, costiveness, and flatulencies. The intestines, in this loaded state, press upon the surrounding viscera, and obstruct the circulation of the different fluids in them. The liver, mesentery, and spleen, are exposed to be injured from this cause; their natural functions are impeded; the animal economy is disturbed; and, when this is the case, the constitution must be injured, and diseases ensue. The natural secretions are not in due quantity; they, together with the perspiration, are retained in the body, and are absorbed or taken up again into the mass of humours. And hence arises another source of disease. The circulation of the blood, through the whole system, is slow and languid. Hence the humours or juices are not properly prepared; glandular obstructions are formed in different organs of the body; the sheath and legs swell; running sores take place in the latter, commonly called grease; and the whole mass of fluids are greatly disposed to putrefaction; diseases follow, and death frequently concludes the scene.

On the other hand, constant and habitual exercise renders the body strong and active, and, at the same time, fit for the most violent exercises. All animals,

when left to themselves, are directed by natural instinct to use exercise. Young animals, in particular, show a strong propensity to it; and the very nature and constitution of a horse requires a considerable proportion of exercise at all times of life.

Exercise acts as an assistant to the heart, in promoting a free circulation of the blood and juices through every part of the body. It creates an appetite, and promotes digestion, and thereby greatly assists in converting the food to nourishment. It promotes all the secretions and excretions, which enlivens the body, and gives room for fresh supplies of nourishment; it invigorates the whole system; it gives a flow of spirits, and adds firmness and strength to the muscles and sinews. In short, without a certain proportion of exercise, no animal body can enjoy health.

The motion of the body, or what is called muscular motion, causes the blood and juices to circulate freely through every part. As this motion continues or increases, the breathing becomes quicker and shorter, and the perspiration is forced out at the pores of the skin. The sweat then becomes visible on the surface of the body, in the form of steams, like smoke. The wetness on the skin sometimes resembles froth, and is sometimes thin and watery, according to the habit of body the horse is in at the time. The sweat of a fat horse is always clammy, and of a frothy appearance; that of a thin meagre habit, when in good condition for exercise, is thin and watery.

The constant and habitual use of exercise or labour increases the firmness of the muscular fibres, which, being thereby more closely compacted, the serous or watery parts of the fluids are more expressed from their interstices, by which they acquire a degree of rigidity, that causes, as it were, a dryness of the whole muscular parts. Hence the difference is very visible to the eye, between the firmness of the flesh of post, running, and hunting horses, and those that are fat, and little used to labour or exercise.

The effects of exercise to horses are not only beneficial to their health, but, at the same time, it keeps them in that condition which is necessary to preserve them in proper order for performing the various labours which may be required of them: besides, in many cases of beginning disorders, its good effects soon become visible, when it is used as a medi-

cine, in those horses who have swelled legs, &c. from standing idle in the stable. For, although such horses may have been declared full of humours, and that nothing could relieve them from these supposed humours, but purging, diuretic, or alterative medicines; yet it has been frequently found, that regular exercise, frequent rubbing of the legs, with a roomy stall to stretch their legs when they lie down, have removed these complaints, without any medicine whatever.

It has already been observed, that, in great towns, most horses that are kept there are much injured for want of regular exercise. They stand in the stable, pampered to the full with the richest food, for days, nay even for weeks, together, without going any farther than the water, and frequently even that is carried to them. Hence their stomachs are filled and over-loaded with gross food. This produces a crude indigested chyle, which vitiates the blood, and disposes it to disease. Rides, or covered shades, for exercising horses in all weathers are extremely useful; and no stable-yard, in large towns, should be without them; although, at the same time, the open air is preferable to too close shades, or riding houses.

I remember to have somewhere read of a fact that seemed to have all the marks of authenticity, and which is applicable to the present subject, the substance of which is as follows:—The governor of a fortress on the continent having been unexpectedly shut up in his garrison, by the enemy, at a time when he had admitted a considerable body of cavalry of his own party on their march. In such a situation, the cavalry were looked upon as lost; but, to the amazement of those who saw them when the siege was raised, they were not only in health, but in excellent order, and fit for the most active exercises. The method the governor ordered them to be treated was thus: As he had no room to exercise them but in the stable, which was bomb proof, he ordered three men at a time to each horse; one to get on his back, the other two were stationed on each side behind him, with long whips in their hands, they were ordered to make the horse stir about from side to side, till such time as he was covered with sweat; the men, when tired, were succeeded by others. Others again were ordered to rub the horse down till he was quite dry. This manoeuvre was repeated every day; which afforded exercise both to men and horses,

and preserved both from those diseases which arise from inactivity.

From what has been said, it will appear how salutary, and even necessary, regular exercise is, in preserving horses in health. From the same reasoning, it likewise may be inferred, that they should be accustomed to labour and active exercises by degrees; for all sudden changes, whether from idleness to active exercises, or from those exercises to idleness, produce considerable changes in the system, and render both the solids and fluids liable to disease. This we experience from our feelings. When a man, who has not been accustomed to undergo much fatigue performs any violent exercise or labour of any kind, by which he has been overheated and fatigued, while he is warm he feels no complaints; but, when he cools, he will feel himself stiff, and all over pained in the muscular parts; but if he perseveres in the daily use of the same exercise or labour, it becomes at last familiar to him, so that he can perform these exercises with ease to himself, and at the same time he will be free from those pains in the muscular parts which were at first occasioned by exertions to which they had not been accustomed. It is the same with horses, on their being first set to hard labour, or violent exercises, although they cannot express their feelings; yet the stiff contracted steps, upon moving them about, after a hard day's work, fairly discover that this is the case with them. Accustom them regularly to the habitual practice of these exercises or labour, it then becomes easy to them, without any stiffness or difficulty of breathing following from it. Hence, when a horse has arrived at this state or habit of body, he is then said, in the stable phrase, to be in wind.

EXPEDIMATE implies the cutting out the central ball of the foot of a dog, or such claws as shall totally prevent his pursuit of game. In earlier times, when the forest laws were more rigidly enforced, the owner of any dog not expediated, living within the district, was liable to a fine for non-obedience.

EXTRAVASATION, applies only to such fluids as may, from any accidental cause, or injury sustained, escape from the tubes or vessels in which they were confined; when they, from such extravasation, become stagnant, laying the foundation of an obstruction terminating in an enlargement, probably disagreeable to the eye, and some impediment to action. Ex-

travasated lymph, oozing from ruptured fibres, lay almost invariably the foundation of almost every tumefaction to which we can advert.

EYE. The organ of vision, through the means of which objects are represented to the mind. The eye is retained in the cavity termed the orbit by a variety of appendages, all essential to its welfare and economy.

The eye-lids of the horse are composed of a mixture of membranous and cartilaginous substances, and these terminate on their edges in a firm cartilaginous body, called tarsus. The tarsus is extremely vascular, and its vessels are attached to what are denominated the ciliary ducts, secreting a fluid for the purpose of moistening and lubricating the surfaces of the tarsi, and thereby preventing such consequences as otherwise constant friction would be apt to produce. When the tarsi become diseased, matter or pus is discharged, instead of the usual healthy liquor: in this state, excoriations of the neighbouring parts, and temporary adhesions of the eye-lids, may be expected. Two muscles, the elevator palpebræ and the orbicularis, perform the offices of opening and closing the eye-lids. The eye-lids of the horse are not so plentifully furnished with hair, termed the lashes, as those of the human subject; they are few and scattered, yet they fully serve to protect the eye from insects or other extraneous particles. The internal part of the eye-lids is covered by a thin, fine, vascular membrane, the tunica conjunctiva. This coat is reflected over the whole of the front of the ocular globe; here it ceases to be vascular almost entirely, and acquires a high degree of transparency, particularly in the centre of the eye. This transparency, however, is diminished or destroyed when the conjunctiva is diseased. As the tears contain a considerable portion of salt, they would be constantly producing irritation on the tunica conjunctiva, did not this membrane secrete a mucus to defend it from such an effect.

The lachrymal gland is situated at the outer corner and superior part of the eye. It has five, and sometimes six, excretory ducts, which convey the tears over the surface of the eye, by the puncta lachrymalia; they enter the ductus ad nasum, and are thence carried to the nose. The puncta lachrymalia of the horse's eye are much larger in proportion than they are found in the human subject. The horse has no lachrymal sac; and the ductus ad

nasum is osseous as far as the tubernated bones, where it becomes membranous, and terminates near the extremity of the nostril.

The tears are designed to preserve the transparency of the eye, to wash off extraneous matter, and to prevent any ill consequences from the friction between the cornea and the palpebræ. The lachrymal gland of the horse differs from that of the human subject, in not possessing a voluntary power, or being subject to the emotions of the mind. In the human eye, the lachrymal gland is frequently diseased; it may have its action morbidly increased, as in the epiphora, or watery eye: this seldom occurs with the horse; when it does take place, however, it is occasioned by inflammation.

At the inner corner of the eye of the horse is placed a cartilaginous body, no resemblance to which is to be met with in the human subject. This is the membrana nictitans, vulgarly called the haw. In the eyes of many birds we find a similar appendage, and what may with more accuracy be denominated a membrane, for it is really so; whereas, in the horse, this part is entirely composed of cartilage. Birds have a muscle for the sole use of directing the motions of this substance, horses have none. Whenever the eye is inflamed, it is drawn into the orbit by the retractor muscle; and the haw, being prevented from accompanying it by the bones of the orbit, seems to pass over about one half of the surface. If, by any motion of the eye, it be drawn to the internal corner, the membrana nictitans will have the appearance of covering the whole.

The eye is composed of three coats and three humours: some veterinarians acknowledge the existence of four coats, by the cornea forming two, the transparent and the opaque, which may be separated by maceration. The transparent cornea of the horse is large in proportion to that of the human subject: this circumstance endues him with a superiority of vision in the night. On removing the transparent cornea, the aqueous humour escapes, and the iris appears. The iris is a muscular curtain of an annular figure, having a hole in the middle, termed the pupil, and dividing the anterior part of the globe of the eye into two chambers: these are occupied by the aqueous humour. The pupil in the human eye appears black; but in the horse's eye it is of a blueish cast. The aqueous humour gives a convexity to the eye, refracts the rays of light, and en-

ables the pupil to perform its office. The pupil of the horse is horizontal, of some other animals perpendicular, of the human subject it is circular. The iris regulates the quantity of light that should pass through the pupil; and, when the former contracts, the latter is enlarged, and *vice versa*. A peculiarity in the eye of the horse is, his having several small, black, glandular bodies; the office usually ascribed to which is, their more effectually excluding the admission of light.

On removing the iris, the second humour, viz. the chrySTALLINE lens, makes its appearance. This is retained in its situation by a coat called its capsule, between which and the lens, a quantity of fluid has been discovered, termed by anatomists the liquor Morgagni (from the anatomist who first made the discovery), and supposed to be intended to prevent an immediate contact of the parts. The chrySTALLINE lens, in health, is transparent: its structure is such that the outer parts are soft, and become more and more firm as we approach towards the centre.

The use of the chrySTALLINE lens is to afford, by the refraction of light, a focal point on the retina.

The ciliary processes are a continuation of the choroid coat. In order to embrace the chrySTALLINE lens, they are thrown into plaits or folds. Their use is to oblige all the rays of light to pass immediately through the lens. Some animals, as fish, have no ciliary processes.

The third humour of the eye is the vitreous. This fluid is not contained in one general bag or chamber, but in numerous minute cells, resembling those of the orange, and of an admirable transparency. This humour is of the consistence and appearance of the purest water.

The vitreous humour serves to produce a small degree of refraction in the rays of light, and occupies and distends the posterior part of the globe of the eye.

The caruncula lachrymalis of the horse differs from that of the human subject, it being much less vascular. Its situation lies between the two puncta: it is vascular only where it comes in contact with the tears, which it directs into the puncta. It is partially covered by the conjunctiva.

The diseases of the eye of the horse, though not very numerous, are by no means easily removed. Their usual situations are the tunica conjunctiva and the transparent cornea. Inflammation very frequently makes a sudden attack on these

parts, attended with a partial and violent determination of blood, an overflowing of the tears and protusion of the membrana nictitans: the light produces an irritating and painful sensation. This state of disease is occasionally periodical, and it is then vulgarly termed moon-blindness.

1. *Ophthalmia, or Inflammation of the tunica conjunctiva*. This begins in the most vascular part of the conjunctiva, then extends to that portion covering the sclerotic coat, and from thence proceeds to the transparent cornea.

When this is the case, the animal's eye-lids drop, the tears run plentifully over the cheeks, and still more pass through the nasal duct, where drops of fluid may be seen at its extremity, which never are seen in the healthy state of the eye; the haw is drawn over the eye, in order to prevent the admission of the rays of light, which, in this state of the eye, would irritate it, and increase the disease. It is not unusual, however, to find the eye that was to-day very much diseased and inflamed, quite clear in the course of the next day. This phenomenon is owing to the power of restoration being in the horse so great in comparison to what is in the human subject.

Mr. Feron justly observes, that this disease is never found in unbroken horses, but always in those that are domesticated. It is neither found in colts nor in old horses, but takes place at the age of between five and six. The reason, he thinks, is, that, at a period when the animal has ceased to grow, and may be said to have arrived at maturity, he is much more subject to plethora, and consequently to inflammatory diseases, than at any other period.

The great cause of ophthalmia in horses is the change of temperature to which they are exposed; not to mention the air they breathe, vitiated by their dung and urine fermenting in the stable. Hence it is that we find more horses with diseased eyes in London than in any part of the country (the cavalry excepted). Unequal exercise also contributes to produce this and almost all other inflammatory diseases; for it is very frequent to see horses exercised and ridden very violently one day, and suffered for a whole week afterwards to remain at rest.

"We are not," says Mr. Feron, "to consider this complaint as local; for, when it is so, it is much easier of cure: but constitutional, and therefore also requiring constitutional remedies and treat-

ment: but, unfortunately, we have not yet discovered a specific of this nature. The animal seldom perspires in this disease; and, if he does, it is in excess, which shows that the constitution is affected; and there is also a slow lingering fever. If he is bled, purged, &c. the eye first affected soon becomes clear; but, at the end of five or six weeks, the other eye becomes inflamed: this gets also clear; and, about the same period afterwards, the eye that was originally inflamed, now again becomes affected, and so on periodically, till the patient is totally blind in one of them. The degree of inflammation is very various; sometimes it is so great that the iris becomes affected, and a little deposit of lymph may be observed at its edge, and also at the edges of the little glandular bodies. This does not take place in the human subject; for, though the iris is contracted, it is in consequence of sympathizing with the retina to prevent the admission of the rays of light. This deposit of lymph is most commonly at the inner angle of the iris, and at the edge of the superior glandular bodies, and it is a sure indication of a succeeding cataract and blindness; and, as it is a deposition on the iris, it is very difficult to get rid of. The cornea is sometimes as red as if it had been washed with venous blood, and neither the iris nor the pupil can at all be seen.

It frequently happens that the iris appears of a yellow colour: this, however, does not indicate any disease in it, but shews an incipient disease of the cornea, which now receives more serum into its vessels than they can make transparent, because they are too much distended and enlarged to produce that effect; just as any coloured fluid will not appear transparent if contained in a glass tube of an increased diameter. These circumstances will also apply to the disease going off, as well as in its incipient state."

Mr. Feron's idea, that "this disease may be considered as a gouty inflammation of the eyes, peculiar to the horse," appears to us somewhat speculative, since it seems to resemble the gout merely in being a *periodical* disease. It is not, he insists, of the same specific character in diseases that affect the eye of man, of the ox, the sheep, or even the ass, which so much resembles the horse in other things. "In a number of cases the inflammation is periodical, and blindness is sure to ensue, though not always in both eyes; for, when one eye becomes blind, the other

frequently remains well: and therefore farriers employ the cruel mode of taking out one eye to save the other, which is sometimes attended with success, by the inflammation that is produced acting in the same way that a rowel or seton would do."

The treatment of ophthalmia in the horse is confined entirely to bleeding, purging, and diuretics; fomentations of warm water, in order to diminish the irritation from the tears that run over the cheeks; wholesome diet, and moderate but continual exercise, to increase perspiration.

2. *The Cataract.* "The most common and general termination of this specific ophthalmia," Mr. Feron observes, "is in the cataract. This is nothing more than an opacity of the crystalline lens, which was before transparent; it generally becomes of a white or yellow colour, &c. and inclining to white in the circumference: sometimes the capsule of the lens becomes thickened, and even bony, &c. an example of this kind is kept in the museum of the Veterinary College.

At other times, the lens escapes from its capsule, and adheres to the iris, which comes in contact with the cornea; the vitreous humour becomes absorbed, and the posterior part of the eye filled with lymph, the size of the eye being diminished. But if there is no lymph thrown out, then the cavity of the vitreous humour remains, and a septum is formed between it and the lens.

When the lens or crystalline humour gets loose out of its capsule, if it does not adhere to the iris, it rolls about the eye like a marble, and produces absorption of the vitreous humour, retina," &c. See CATARACT.

3. *Matter formed by the iris* is another, and not unfrequent, disease of the horse's eyes. In this case the purulent fluid gravitates to the depending part of the anterior chamber of the eye, and has a semi-circular appearance, on account of the figure of the cornea, the pupil being always contracted. If this matter is not soon removed, it will, by pressing on the cornea and iris, produce blindness: we ought, therefore, as soon as it is perceived, to puncture the edge of the cornea, just below the matter, with the point of a lancet, so as to allow of its escape. This appearance is almost always the forerunner of a cataract.

4. *Gutta Serena.* This disease is vulgarly called "glass-eyes" by farriers, be-

cause the eyes, far from being dull or disfigured, generally appear very clear and glassy. It is a much more frequent affection of the human eye than of that of the horse. The pupil is very much enlarged and dilated, in consequence of the total loss of sensibility in the retina and optic nerve; which being no longer capable of stimulating it to action, the muscular fibres contract from the centre towards the circumference, enlarging the aperture as when the perfect eye is exerting its powers to view objects in the dark. The gutta serena is supposed generally to arise from an affection of that portion of the brain immediately connected with the optic nerve; but it is more likely that the deficiency is confined to the nerve itself. Some diseases of the brain, as the staggers, or a blow on the head, will produce it. When proceeding from any of these causes, we may attempt the cure by bleeding, purging, blistering the top of the head, and stimulating the nostrils (Mr. Feron says) with the vapour of vitriolic or marine acid.

5. *Watery Eyes.* This complaint, as its name indicates, proceeds from an increased secretion of tears, which flow down the cheeks, in consequence of the lachrymal ducts not being capable of carrying all the superfluous quantity away; or it may arise from an obstruction of the nasal duct.

If the secretions from the lachrymal glands become inordinate, either from this cause, or from mere debility, which may render them too obedient to common stimuli, bracing and sedative collyria, such as those prepared with saturnine or other metallic salts, seem to promise the greatest advantage, without having recourse to means calculated to act on the system. But, when the watery eye is found to proceed from an obstruction of the ductus ad nasum, "the passage must be opened by injecting a decoction of linseed, or any other glutinous injection: if this fail, the ductus ad nasum must be opened with an instrument, introduced with great dexterity from the eye down to the nose."

6. *External Injuries of the Eye.* An inflammation produced by wounds or contusions of the eye-lid may extend to the eye itself; though few such accidents will occasion a loss of sight, if properly treated. In such cases, there is often a complete opacity for a time; but, on removing the inflammation, the cornea generally recovers its transparency. In violent acci-

dents, indeed, where wounds have extensively divided the coats of the eye, or where the eye has been ruptured by a contusion, vision, of course, is completely and irretrievably destroyed.

Mr. Denny advises us, whether the inflammation arise in consequence of injuries to the eye itself, or to the eye-lids only, to observe the following treatment:

Take away four or five pints of blood from the neck-vein, and apply the following poultice to the eye:

Take of Bread, finely grated, a handful;

Lead-water, enough to make it of a proper consistence; add

Olive oil, one ounce;

mix them. Apply it cold; renew it several times daily; and give the following ball, with mashes of bran and warm water:

Take of Barbadoes aloes, one ounce;

Ginger, in powder, two drachms; form them into a ball with treacle.

A low diet being required, hay and corn must be sparingly allowed. If the inflammation does not subside by the third or fourth day, a rowel put under the jaw, and continued till the disease be removed, is a suitable remedy.

After the above ball has operated, Mr. Denny directs the following fever-ball to be given morning and night:

Take of Antimonial powder, one scruple;

Nitre, in powder, six drachms;

Aniseeds, half an ounce;

Treacle, sufficient to form the ball.

It is not uncommon, he observes, for small specks to remain on the cornea after the inflammation is removed. "In such cases, the best application is a few drops of the tincture of opium, on lint, introduced between the eye-lids once or twice in the day. This stimulates the lymphatics to absorb the lymph; which, being diffused between the coats of the eye, occasions imperfect vision."

The state of the eyes in every horse constitutes so much of the value and excellence in respect to their good or bad formation, that proper, nay, extreme, circumspection ought to be used in the examination previous to purchase. The best and most experienced judges of horses are sometimes seriously disappointed, and not unfrequently deceived, in a superficial survey, and too hasty decision: in fact, there is no point of the animal upon the merits of which (in a variety of instances) it is so difficult to form

an accurate, at least an infallible, opinion, as upon the parts before us. If at first sight you are attracted by their bright, bold, prominent appearance, and observe they are sufficiently clear and transparent to reflect your own figure in the eye as you stand before it, and the horse neither winks, blinks, or rolls the orbs of the eyes about, as if feeling for the light when brought out of the stable, there is then every well-founded reason to believe they are not only safe, but perfectly good. On the contrary, when the eye appears flat, as if sunk in its orbit, with a palpable vacuum round the orb, between it and the eye-lid, it is a very unfavourable indication; particularly if there should be no defluxion from the eye, to justify the idea

of a temporary injury having been sustained by a blow, bite, or some such accident, neither to be foreseen nor guarded against. If there is a palpable indentation above the orbs, and a wrinkled contraction of the eye-lids towards the forehead, they are invariable symptoms of something wrong.

A small pig-eye should be likewise carefully avoided, as they are seldom to be depended upon; the subject is frequently addicted to starting, and the future state of the eye in general doubtful. A cloudy muddiness within the outer humour of the eye, (giving it an opaque appearance) or a milky thickening of the surface, denote present defect, and great probability of approaching blindness.

F

FALCONER. A falconer, whose province it was to tame, manage, and look after falcons, and other hawks, was formerly as great and conspicuous a character as the most celebrated huntsman of the present day. The influence of fashion, and the changes wrought by time, have, however, very much obscured both sport and sportsman.

FALCONRY. I cannot but lament that the noble, the royal, diversion of Hawking, should have so much declined, as to be known in this country by little more than the mere name. As a diversion, it was far superior to the net, which was practised at the same period; and it is doubtful even, if the pleasure of the fowling piece is equal to that which was derived from the flight of the well-trained hawk. In remote antiquity, the kings of Persia and other eastern monarchs, as well as noblemen, followed, if not the same diversion, at least something nearly allied to it. In these countries, the eagle was taught to fly at the antelope, the gazelle, and the stag; while in Europe, the stronger kinds of hawks were trained to strike the hare, and the lesser used for feathered game. In some parts of the East, I believe, it is still practised; but in England, if the science of Falconry is not altogether forgotten, the breed of hawks best calculated for the purpose is as nearly as possible extinct. An eyrie or two may still be found perhaps in Scotland, and one still remains, I believe, in some part of Northumberland; but as these birds are unwelcome visitors to the farmer, they are not likely to increase, as they are not, as formerly,

protected by law: it is true, the statutes for this purpose remain; but, as hawking has been almost laid aside, they can be regarded in no other light than as a dead letter. Immense sums were formerly given for a cast of hawks; and, in the reign of Edward III. it was made felony to steal one of these birds. To take its eggs, even in a person's own ground, was punishable with imprisonment for a year and a day, together with a fine at the king's pleasure.

Falconry constituted one of the principal amusements of our ancestors: and a person of rank scarcely ever went abroad without a hawk on his fist: indeed, in such estimation was the diversion of hawking held amongst the great all over Europe, that Frederic, one of the Emperors of Germany, condescended to write a treatise upon the subject.

The hawks chiefly used for this diversion were the gyr-falcon, the falcon, the lanner, the sacre, the hobby, and the merlin. These are called long-winged hawks, to distinguish them from the baser kinds, such as the kite, buzzard, &c. which are neither so swift, so bold, nor so susceptible of that attachment to their keeper which distinguish the generous kind before mentioned.

The gyr-falcon is the largest of this fierce tribe; and next to him the falcon properly so called, of which there seems to be some variety, principally distinguishable under the heads falcon-gentil and peregrine-falcon, both, however, about the size of the raven. Next follows the lanner, the sacre, the hobby, and last of all

the merlin. The last of these may be frequently seen in this country in winter : its plumage is very beautiful, the wings and back are ash-coloured blue, and the throat yellow spotted with black ; in size it scarcely equals the cuckoo ; but its courage is equal, if not superior, to the gyr-falcon itself. It retires, on the approach of spring, to the northern parts of the continent, where it breeds. All these birds, indeed, may be found on the continent, and the falcon, properly so called, is still to be met with in Scotland ; but is generally distinguished by the appellations of the falcon and the tarsel ; these, in fact, are nothing more than the male and female of the same species : the tarsel is the female, and is, at the same time, the larger and the fiercer, in direct opposition to the general rule, but which, however, is found to be the case throughout the hawk and eagle tribes, if it do not prevail uniformly in all the rapacious kinds of birds.

But, notwithstanding the pleasure to be derived from the amusement of hawking, one very weighty reason may be stated for its decline, independant of the general introduction of the fowling-piece, viz. the trouble and expence attached to the rearing, training, and keeping these birds in order. It is true, the office of king's falconer still exists, and with a salary of more than one thousand pounds per annum ; yet there is little probability of the nobleman who receives it being often called upon to produce such ensigns of his office.

Falconry began about A. D. 450, continued a favourite amusement, and was cultivated as a liberal art so late as the fifteenth and sixteenth centuries. The office of grand falconer of England is hereditary in the Duke of St. Alban's, as that of master of the game is in the Duke of Grafton. The salary attached to the office is 98*l.* 10*s.* per ann. and 30*l.* each lunar month, making together 1372*l.* 10*s.* but, from various deductions, it does not net above one thousand pounds a year. The consequence annexed about the year 942 to the falconer of Howel Dha, Prince of Wales, we gather from the rules of his household, and we have every reason for believing (with the exception of a few national peculiarities) that these regulations were formed upon the same model as those of England. Among the twenty-four great officers of the Welsh court, the fourth was the great falconer, and he was limited to three draughts only of strong liquor at the royal table, lest intoxication should make him neglect his hawks. When this cour-

tier succeeded in his sport, the prince rose to meet him, and sometimes held his stirrup.

The mode of training a hawk is, in the first place, to put a cap of leather, called a hood, on the hawk's head the moment he is taken. It is so constructed as to prevent him from seeing, but to allow him to feed.

Slips of light leather, seven or eight inches long, and a quarter of an inch wide, are to be made fast to each of his legs. These are called jesses, and are to be fastened to a small swivel, fixed to the end of a thong of leather, three or four feet long, called a leash, so as easily to be detached from the swivel when the hawk is required to fly.

He is also to be equipped with two light bells, fastened to his legs by pieces of soft leather ; by the sound of which, when he is lost, we may be assisted in recovering him.

The hawk is now to be taught to come to the lure ; it is a forked piece of wood, covered with the wings of birds, and heavy enough to prevent the hawk from flying away with it. Pieces of meat are tied to each side of the lure, and it is attached to a string three or four feet long, by which it may be swung round in the air, or thrown to a distance.

The hawk is to be fed upon the lure, being first made to come to it when held very near him, then, when held a little farther off ; it is to be next thrown upon the ground to a small distance, and thus he is to be brought by degrees to fly to it, and to seize it eagerly, however far it may be thrown.

An assistant is now to swing the lure at some distance from the falconer, who casts off the hawk.

It is to be thrown into the air when the hawk is flying towards it, but so that he cannot attain it until it falls to the ground, lest he should be hurt by striking it in its flight.

When this lesson has been repeated, until the hawk has become eager to take the lure, the assistant is to swing it as before, but is to take it into his hand when the hawk is coming ; he is then to swing it again as soon as the hawk has passed ; and finally, to throw it upon the ground, when the hawk is returning towards him.

In this way the hawk will soon be taught to fly round the falconer, bending his flight inwards when the lure is shown to him, or when he hears the call of the falconer, who should always halloo when he

is luring. He may thus be made to follow the falconer wherever he pleases; this is called waiting on.

When the hawk has alighted upon the lure, the falconer is to walk round him, whistle to him while he is feeding, and reward him with a good meal when he is taken up.

It is thus that hawks are made obedient to the lure, and that they are exercised when they cannot be flown at game, but they must not be kept too long upon wing, or they would acquire the habit of flying low; and it is the perfection of a slight falcon to soar as high as possible.

It is now time to enter him to his game. While the hawk is waiting on at a proper height, his head being turned inwards—a partridge tied to a creance is to be thrown up; and when the hawk has taken it, he must be allowed to eat it on the ground near the falconer, who is to walk round him, and whistle to him as usual.

When this lesson has been repeated three or four times, by throwing up partridges not confined by the creance, the education of the hawk may be considered as completed; and he may be taken into the field.

FALLOW-DEER, THE. No two animals can be more nearly allied than the stag and the fallow deer. Alike in form, alike in disposition, in the superb furniture of their heads, in their swiftness and timidity; and yet no two animals appear more distinct, or avoid each other with more fixed animosity. They are never seen to herd in the same place, they never engender together, or form a mixed breed: and even in those countries where the stag is common, the buck seems to be entirely a stranger; in short, they both form distinct families; which, though so seemingly near, are still remote: and although with the same habitudes, yet retain an unalterable aversion. The fallow-deer, as they are much smaller, so they seem of a nature less robust, and less savage, than those of the stag kind. They are found but rarely wild in the forests; they are in general bred up in parks, and kept for the purpose of hunting, or of luxury, their flesh being preferred to that of all other animals. It need scarce be mentioned, that the horns of the buck make its principal distinction, being broad and palmated; whereas those of the stag are in every part round. In the one, they are flattened, and spread like the palm of the hand; in the other, they grow like a tree, every branch being of the shape of the stem that bears it. The fallow-deer also has the tail longer, and the hair lighter than the stag; in other respects, they pretty nearly resemble one another.

The horns of the buck, as of all other animals of this kind, are shed every year, and take the usual time for repairing. The only difference between it and the stag is, that this change happens later in the buck; and its rutting time, consequently, falls more into the winter. It is not found so furious at this season as the former; nor does it so much exhaust itself by the violence of its ardour. It does not quit its natural pastures in quest of the female, nor does it attack other animals with indiscriminate ferocity: however, the males combat for the female among each other; and it is not without many contests, that one buck is seen to become master of the whole herd. It often happens also that a herd of fallow-deer is seen to divide into two parties, and engage each other with great ardour and obstinacy. They both seem desirous of gaining some favourite spot of the park for pasture, and of driving the vanquished party into the coarser and more disagreeable parts. Each of these factions has its



FALLOW DEER.

F A L L O W - D E E R

particular chief; namely, the two oldest and strongest of the herd. These lead on to the engagement; and the rest follow under their direction. These combats are singular enough, from the disposition and conduct which seem to regulate their mutual efforts. They attack with order, and support the assault with courage; they come to each other's assistance, they retire, they rally, and never give up the victory upon a single defeat. The combat is renewed for several days together; until at length the most feeble side is obliged to give way, and is content to escape to the most disagreeable part of the park, where only they can find safety and protection.

The fallow-deer is easily tamed, and feeds upon many things which the stag will refuse. By this means it preserves its venison better: and even after rutting, it does not appear entirely exhausted. It continues almost in the same state through the whole year, although there are particular seasons when the flesh is chiefly in esteem. This animal also browses closer than the stag; for which reason it is more prejudicial among young trees, which it often strips too close for recovery. The young deer eat much faster and more greedily than the old; they seek the female at their second year, and, like the stag, are fond of variety. The doe goes with young about eight months, like the hind; and commonly brings forth one at a time: but they differ in this, that the buck comes to perfection at three, and lives till sixteen; whereas the stag does not come to perfection till seven, and lives till forty.

As this animal is a beast of chase, like the stag, so the sportsmen of the old school have invented a number of names relative to him. The buck is the first year called a fawn; the second, a pricket; the third, a sorel; the fourth, a sore; the fifth, a buck of the first head; and the sixth, a great buck: the female is called a doe; the first year a fawn; and the second, a tegg. The manner of hunting the buck is pretty much the same as that of stag-hunting, except that less skill is required than in the latter. The buck is more easily roused; it is sufficient to judge by the view, and mark what grove or covert it enters, as it is not known to wander far from thence; nor, like the stag, to change its layer, or place of repose. When hard hunted, it takes to some strong hold, or covert, with which it is acquainted, in the more gloomy part of the wood, or the steepes of the mountain; not like the stag, flying before the hounds, nor crossing, nor doubling, nor using any of the subtleties which the stag is accustomed to. It will take the water when sorely pressed, but seldom a great river; nor can it swim so long, nor so swiftly, as the former. In general, the strength, the cunning, and the courage of this animal, are inferior to those of the stag; and consequently it affords neither so long, so various, nor so obstinate a chase.

As the buck is a more delicate animal than the stag, so also it is subject to greater varieties. We have in England two varieties of the fallow-deer, which are said to be of foreign origin. The beautiful spotted kind, which is supposed to have been brought from Bengal; and the very deep-brown sort, that are now so common in several parts of the kingdom. These were introduced by king James I.

from Norway; for having observed their hardiness, and that they could endure the winter, even in that severe climate, without fodder, he brought over some of them into Scotland, and disposed of them amongst his chases. Since that time they have multiplied in many parts of the British empire; and England is now become more famous for its venison, than any other country in the world. Whatever pains the French have taken to rival us in this particular, the flesh of their fallow-deer, of which they keep but a few, has neither the fatness nor the flavour of that fed upon English pasture.

However, there is scarce a country in Europe, except far to the northward, in which this animal is a stranger. The Spanish fallow-deer are as large as stags, but of a darker colour, and more slender neck: their tails are longer than those of ours, they are black above, and white below. The Virginian deer are larger and stronger than ours, with great necks, and their colour inclinable to grey. Other kinds have the hoof of their hind legs marked outwardly with a white spot; and their ears and tails much longer than the common. One of these has been seen full of white spots, with a black list down the middle of his back. In Guiana, a country of South America, according to Labat, there are deer without horns, which are much less than those of Europe, but resembling them in every other particular. They are very lively, light of course, and excessively fearful; their hair is of a reddish fallow, their heads are small and lean, their ears little, their necks long and arched, the tail short, and the sight piercing. When pursued, they fly into places where no other animal can follow them. The Negroes stand to watch for them in narrow paths which lead to the brook where they drink, or the meadow where they feed; there waiting in the utmost silence (for the slightest noise will drive them away) the Negro, when he perceives the animal within reach, shoots, and is happy if he can bring down his game. Their flesh, though seldom fat, is considered as a great delicacy, and the hunter is well rewarded for his trouble.

FALSE QUARTER—is a defect in the hoof of a horse, originally sustained by some injury, producing a destruction of parts; as quittor, canker, wounds, treads, bruises, or such formation of matter, by which a part of the hoof has been unavoidably destroyed, or necessarily taken away. In the regeneration of parts, the incarnation (from the rigid and horny nature of the hoof) is irregular and imperfect, forming a sort of cleft (or artificial union) with the sound part upon the surface, productive of a sensible weakness underneath. This imperfect and defective junction renders such quarter, as it is called, inadequate to the weight it is destined to bear; in which case much judgment is required, and may be exerted, in the palliation, as perfect cure is not to be expected. Care must be taken in forming the shoe to relieve the tender part from

pressure, by hollowing it at that particular spot, and letting the bearing be fixed entirely upon the sound parts. By constant attention in reducing the prominent edges of the irregular projection with the fine side of the rasp, and a few occasional impregnations with fine spermaceti oil, the hoof may be sometimes restored to its original formation.

FAR, in the manege, a term used to denote any part of the horse's right side: thus the far foot, far shoulder, &c. is the right foot, right shoulder, &c.

FARCY is a chronical disorder, which takes place in consequence of a relaxation and obstruction in the absorbent vessels, which are very numerous and large in the posterior extremities of the horse, consequently produces swellings in the legs, belly, and other parts of the body. When these swellings are large, they are known

by the name of water-farcy; but as the disease takes root, the lymphatic veins also swell, and will soon appear like knotted cords; these knots are produced by the valves with which these kind of vessels are particularly supplied; the knotting obstructions taking place at each valve, occasions them to burst, and produce ulcers of a bad nature, and difficult to cure, which, in a very short time, spread all over the body; this state of the disease is termed the corded and button farcy.

If the disorder has been neglected or ill-treated, the swellings of the legs and other places increase; the horse falls off his food, he grows lean, a consumptive fever comes on, and a running at the nose takes place, which, in its further progress, often announces, that the farcy has degenerated into the glanders. The causes that produce this disorder, may be general debility, foul feeding, a want of proper exercise, a schirrous state of the mesenteric glands, or from an affection of the secretory organs, or from an impurity of the serum; and, whatever diminishes the vital heat. The strangles greatly exalt the malignity of this disorder.

At the beginning of the disease a considerable enlargement and pain are perceived in the affected absorbents. Glandular tumours begin to spring up, at first extremely sensible, but soon becoming schirrous; and if these symptoms are permitted to increase, those little tumours soon discharge a foul and corroding sanies, which gives the disorder a very ugly appearance, by spreading themselves with a considerable rapidity all over the body. When the disorder attacks the head first, it may be expected it will proceed with greater violence, and will terminate with more pernicious consequences, than at any other part of the body, as this last symptom frequently announces it will finish in the glanders. Another case equally fatal, is, when the farcy retreats from the outward parts of the body, and falls upon some internal viscera, such as the lungs, intestines, &c.

The cure. When the animal is fleshy, or in high condition, bleeding, and a little mild purging physic, cooling diet, and a great deal of gentle exercise, will be required.

But should the animal be low in condition, his hide bound, his coat staring, it cannot but be obvious, that medicines, having a tendency to reduce the system, must be avoided, which symptoms announce, that the constitution of the ani-

mal has become vitiated by the absorption of the poison produced by farcy; the buds will be numerous, the absorbent vessels, and sometimes the veins accompanying them, will be hard and distended; painful swellings will probably attack the extremities, and the whole frame will soon wear a haggard and distressing appearance.

At such a period, and indeed in every degree of farcy, we may give the following balls, gradually increasing the proportion of the active material, until it has arrived at three or four times its original quantity. Particular care must be taken the horse is not exposed to cold air, his cloathing warm, and a moderate gentle exercise twice a day.

Should the animal feel sore about the mouth or throat, purge or stale too much, from the use of those balls, in this case, the use of medicines should be discontinued until these effects disappear, and the horse recovers his appetite, viz. take of muriate of quick-silver, (corrosive sublimate), an ounce; antimony, four ounces; flowers of sulphur, eight ounces; anisated balsam of sulphur, a sufficient quantity to form sixteen balls. One of these, or of the following, may be given every day.

Take arsenic an ounce, antimony, four ounces, flowers of sulphur, eight ounces, anisated balsam of sulphur, a sufficient quantity to form sixteen balls. The use of these medicines must be continued some time after the disease is removed. If any of these balls cause irritation upon the intestines and kidneys, their use must be discontinued; or, it will be adviseable to add half a drachm of opium to each ball.

The diet must be scalded oats and bran, mixed together, with a handful of split beans, at each feed: the cloathing must be warm, his drink made warm also, and white with bran or meal.

The local treatment of farcy must be attempted by frequent application of blisters, as well as the application of actual cautery, which must be repeated as often as necessity requires, being certainly the best local applications, particularly when there are ulcers. Their effect is to diminish the inflammation of the absorbents, by creating an irritation of the skin; while, by stimulating the external absorbents, the action of the internal are also increased. Moreover, the parts that have been blistered, and those cauterized with the hot iron, must be well fomented with a solution of blue vitriol; the parts being previously washed with warm water.

FARRIER, sometimes written **FERRIER**. A person or smith who forges horses' shoes and fixes them on. As the notorious errors committed by ignorant persons in this occupation were the cause of many diseases in the foot, it naturally followed that the same practitioners were resorted to for the cure of the latter. Hence every morbid affection in the horse came at last to be treated by farriers, whose miserable blunders, however, have at length awakened the community to a sense of the evils which that most useful animal has been exposed to for so long a period; and the term *farrier* will henceforth be exclusively applied to the mechanic who fashions and fixes the horse's shoe, under the direction of the veterinary surgeon. In the farrier, too, some degree of sagacity and discrimination is necessary in the application of the new principles which should direct him in the exercise of his art.

FEATHER. The central division, and different directions, of the surrounding hair in a horse's forehead is so called: they are also frequently seen upon the neck on one or both sides the mane, and sometimes upon the hind quarters.

FEATHER WEIGHT. The lightest weight that can be put upon the back of a horse, in whatever match he may be engaged, and totally depends upon the will of the owner; who is not under the necessity of bringing his rider to the scale either before or after the race, in an engagement where "feather weight" is particularly expressed.

FEBRUARY. Shooting continues during this month as far as relates to the snipe and the wood-cock, and perhaps wild fowl, though such of these birds as breed in this country ought to be no longer pursued.

Coursing continues, and hares generally run well, unless the females in a state of gestation,—a circumstance not uncommon in the month of February.

Hares still pursued by hounds; and when the male happens to be found some distance from home, he will afford an excellent run, and that too in a direct line, which renders the pursuit something like that of a fox.

Foxes frequently afford capital runs during this month.

FEEDER. A person appointed to prepare, boil, and mix the provision for hounds.

FEEL, in the manege. To feel a horse in the hand is to observe that the

will of the horse is in the rider's hand, that he takes the bridle, and has a good appui in obeying the bit. To feel a horse upon the haunches is to observe that he plies or bends them, which is contrary to leaning or throwing upon the shoulders.

FEET. The feet of horses being the very basis of support upon which the safety and expedition of the frame entirely depend, they are entitled to every possible degree of care and attention; more particularly in the winter season, when, from neglect, so many ills and inconveniences are known to arise. As the injuries, accidents, and diseases, to which the feet are constantly liable, will be found individually enlarged upon under distinct and separate heads, it becomes only necessary here to lay down general rules for the management of the feet.

The feet of different horses vary exceedingly in what may be termed the texture or property of the hoof; and this is, in general, regulated by the colour of the legs and feet. There are few horses with white heels, but what have white hoofs also, and these are supposed to be more liable to defects and weakness, than those of an opposite description. To preserve feet perfectly sound, cleanliness is the leading principle. After exercise or use, so soon as the body is drest, the dirt or gravel should be carefully taken from under the shoes with a picker, the feet well washed, and legs and heels rubbed dry. Horses left with wet legs and heels, after a severe run, or long journey, particularly in sharp easterly winds, or during frost and snow, will be very liable to cracks or scratches. So severe a rigidity is occasioned in the very texture of the integument, that it becomes partially ruptured or broken in various places, upon being brought into expeditious action; which, with the friction and irritation then occasioned by the sharp particles of gravel in dirty roads, soon produce lacerations of the most painful description.

The state of the shoes should be constantly attended to. Permitted to continue too long upon the feet, the growth of the hoof brings the shoe forward, rendering it too short at the heel, when it begins to indent, and sinking upon the foot, soon presses upon the outer sole, constituting pain or disquietude in some horses, and laying the foundation of corns in others. Horses, in moderate work, require new shoes once a month, upon an average, never varying more than two or three

days from that time : indeed, it is not right they should go longer. The penurious plan of removing shoes half worn is truly ridiculous ; they never render service adequate to the expense, and the practice only tends to a more frequent destruction of the hoof. Thrushes should be counteracted upon their first appearance, without being permitted to acquire a corroding virulence. Swelled legs are hardly ever seen in stables where a proper course of discipline, and regular routine of business, is observed ; they proceed from a viscid, sizey state of the blood, a languor in the circulation, a want of exercise out of the stable, or a sufficiency of friction, leg-rubbing, care, and attention within.

FEN BIRDS. The progressions of nature from one class of beings to another, are always by slow and almost imperceptible degrees. She has peopled the woods and the fields with a variety of the most beautiful birds ; and, to leave no part of her extensive territories untenanted, she has stocked the waters with its feathered inhabitants also : she has taken the same care in providing for the wants of her animals in this element, as she has done with respect to those of the other ; she has used as much precaution to render water-fowl fit for swimming, as she did in forming land-fowl for flight ; she has defended their feathers with a natural oil, and united their toes by a webbed membrane ; by which contrivances they have at once security and motion. But between the classes of land-birds that shun the water, and water-fowl that are made for swimming and living on it, she has formed a very numerous tribe of birds, that seem to partake of a middle nature ; that, with divided toes, seemingly fitted to live on land, are at the same time furnished with appetites that chiefly attach them to the waters. These can properly be called neither land birds nor water-fowl, as they chiefly derive their sustenance from watery places, and yet are unqualified to seek it in those depths where it is often found in greatest plenty.

This class of birds, of the crane kind, are to be distinguished from others rather by their appetites than their conformation. Yet even in this respect they seem to be sufficiently discriminated by nature : as they are to live among the waters, yet are incapable of swimming in them, most of them have long legs, fitted for wading in shallow waters, or long bills proper for groping in them.

Every bird of this kind, habituated to marshy places, may be known, if not by the length of its legs, at least by the scaly surface of them. Those who have observed the legs of a snipe or a woodcock, will easily perceive my meaning ; and how different the surface of the skin that covers them is from that of the pigeon or the partridge. Most birds of this kind also, are bare of feathers half way up their thighs ; at least, in all of them, above the knee.—Their long habits of wading in the waters, and having their legs continually in moisture, prevents the growth of feathers on those parts ; so that there is a surprising difference between the leg of a crane, naked of feathers almost up to the body, and the falcon, booted almost to the very toes.

The bill also is very distinguishable in most of this class. It is, in general, longer than that of other birds, and in some finely fluted on every side ; while at the point it is possessed of extreme sensibility, and furnished with nerves, for the better feeling their food at the bottom of marshes, where it cannot be seen. Some birds of this class are thus fitted with every convenience : they have long legs, for wading ; long necks, for stooping ; long bills, for searching ; and nervous points, for feeling. Others are not so amply provided for ; as some have long bills, but legs of no great length ; and others have long necks, but very short legs. It is a rule which universally holds, that where the bird's legs are long, the neck is also long in proportion. It would indeed be an incurable defect in the bird's conformation, to be lifted upon stilts above its food, without being furnished with an instrument to reach it.

If we consider the natural power of this class, in a comparative view, they will seem rather inferior to those of every other tribe. Their nests are more simple than those of the sparrow ; and their methods of obtaining food less ingenious than those of the falcon ; the pie exceeds them in cunning ; and though they have all the voraciousness of the poultry tribe, they want their fecundity. None of this kind, therefore, have been taken into man's society, or under his protection ; they are neither caged like the nightingale, nor kept tame like the turkey, but lead a life of precarious liberty in fens and marshes, at the edges of lakes and along the sea-shore. They all live upon fish or insects, one or two only excepted.

All this class, therefore, that are fed

upon insects, their food being easily digestible, are good to be eaten; while those which live entirely upon fish, abounding in oil, acquire in their flesh the rancidity of their diet, and are, in general, unfit for our tables. To savages, indeed, and sailors on a long voyage, every thing that has life would appear good to be eaten; and we often find them recommending those animals as dainties, which they themselves would spurn at after a course of good living. Nothing is more common in their journals than such accounts as these—"this day we shot a fox—pretty good eating; and this day we shot a heron—pretty good eating: and this day we killed a turtle"—which they rank with the heron and the fox, as "pretty good eating." Their accounts, therefore, of the flesh of these birds, are not to be depended upon; and when they cry up the heron or the stork of other countries as luxurious food, we must always attend to the state of their appetites who give the character.

FERME, in the manege, signifies to exercise in the same spot, without stirring or parting.

FERRET. A well-known useful little animal. The ferret is of great spirit, strength, and courage, is an inveterate enemy to rabbits, rats, and poultry; in the pursuit of which, it will encounter any difficulty or danger, when once put upon the scent. The body is longer in proportion to its height, than almost any other animal, the weasel and stoat excepted. The colour frequently varies, even in the young of the same dam and the same litter; some being black, with white under the belly; some are of a faint straw-colour, yellow, and others of a light sandy red. The eyes are small, fiery, having the appearance of red-hot iron, and can distinguish objects in the dark. It has a natural and instinctive propensity to burrowing, and wherever the head can enter, the rest of the body can easily follow. Whenever the ferret has secured the prey he is in pursuit of, he extracts the blood with extreme pleasure by suction, but is totally indifferent to the flesh; with the exception of the head of either rabbit or rat, the skull of which he directly destroys with his teeth, the better to enjoy an instantaneous and luxurious feast upon the brains.

The ferret usually produces five or six young at each litter, after a gestation of forty days: the offspring continue blind for thirty days. When used in warrens,

they are hunted with muzzles, or their mouths sewed up, that they may alarm the rabbits and drive them from their burrows to the nets, without having the power to injure them; for if they were enabled to seize them under ground they could never be prevailed upon to leave the earths.

FETLOCK. A tuft of hair growing behind the pastern joint of a horse. Hence the joint itself is called the fetlock or pastern joint.

FEVER. An augmented velocity of the blood. The almost infinite varieties of causes of this distemper in the human species does so diversify its appearances, and indicate so many ways of cure, that authors who have written upon it are very voluminous and intricate. But the fevers to which brute animals are obnoxious have not the same character by any means, all their diseases being exceedingly simple.

Simple or idiopathic fever, the most usual species that occurs in the horse, is a preternatural acceleration of the blood's motion, and consequent heat. The compound species of this disease, or the associated and symptomatic, result from some morbid matter thrown upon the circulation, which acts with a virulence exactly commensurate with its proper qualities, and pre-existing state of the body. Fever, in brute animals, is associated with a vast variety of diseases, of which catarrh may be mentioned as a familiar instance. It is also a consequence of all violent accidents, as blows, fractures, &c. in which cases it has been named general inflammation. Fever, however, properly such, arises from spasm of the extreme vessels.

The customary symptoms of fever in the horse are, great heat and dryness of the skin, jaws and tongue, a strong breath, the pulse (which, in health, is from thirty-six to forty beats in a minute) quicker than natural or intermitting, dullness and inflammation of the eyes, heaving at the flanks, impeded respiration, the nostrils dilated, the ears and lower extremities hot, restlessness, fickle appetite both to meat and drink, sometimes avidity of drink, frequent casting out of dung balls, and difficulty of staling, high-coloured turbid urine. These signs, at their commencement, Mr. Lawrence observes, may indicate no more than simple fever; but, if neglected, as is too common, either from want of care, or on the plea of necessity, the disease may become dangerous. We accordingly find, that some cases of fever will require the earli-

est assistance of our art to check the symptoms. The removal of fever in these cases must be attempted.

1st. By lessening the force of the circulation by venesection.

2nd. By relaxing the intestines, and expelling any irritating matters, which otherwise would increase the disease.

3rd. By administering such remedies as have a tendency to remove spasm from the extreme vessels, and thus restoring them to the healthy standard of action.

4th. By regulating the horse's treatment in the stable, viz. his diet, exercise, grooming, &c.

Lessening the force of circulation by bleeding is the first object towards the removal of fever. And here, as the state of the blood is to be attended to as a guide in employing phlebotomy, it may be proper shortly to notice the component parts of the blood, in order that the practitioner may be assisted in forming his opinion respecting the quantity necessary to be taken away.

When blood is fresh drawn from a vein, it appears to be homogeneous, and of a red colour; but, when suffered to stand in the vessel, it soon coagulates, and divides into two parts, which are distinguished by the names of crassamentum and serum. The crassamentum is the red cake, and the serum the amber-coloured water in which it floats.

The crassamentum itself, indeed, consists of two different kinds of matter, namely, the red particles and the coagulable lymph; and these, when the animal is in a healthy state, are so intimately blended as to appear, when cold, a red uniform mass.

But, in cases of inflammation and fever, where the action of the heart and arteries is increased, the blood is longer in coagulating; and the red particles being heavier than the coagulable lymph, which should suspend them, separate and fall to the bottom. This causes the yellow or buffy coat which is seen on the surface of coagulated blood in these diseases; and as the mass of crassamentum is greater or less in proportion to the serum, and more or less covered with a thick yellow matter, so are we to estimate the degree of inflammation existing in the system, and the necessity for farther bleeding.

An attack of simple fever, taken in time, will commonly submit, in two or three days, to a course of medicine and treatment nearly similar to that recommended in a slight case of catarrh (see

CATARRH). Mr. Lawrence proposes to bleed at discretion as to quantity, and give the following drink:

Take of Nitre, from one to two ounces;
Cream of tartar,

Honey, of each a like quantity.

Give in three pints of a warm decoction of bran, or oatmeal-gruel, twice a-day; plying the horse, in the interim, with as much of the latter as he will take, or, if necessary, drenching him with it.

If the inflammatory symptoms are augmented, and attended with violent pulsation, and throbbing in the arteries, so as to indicate the use of the lancet, Mr. Denny says, from three to six pints of blood may be taken away, and the operation repeated in a few hours, if the symptoms or state of blood require it. He observes, that the greatest chance of success depends on early bleeding; for, "in the horse, the progress of disease is much more rapid than in man." After abating the force of the arterial system by bleeding, we are advised to give the following ball:

Take of Calomel,

Antimonial powder, of each
one drachm;

Nitre, in powder, one ounce;

Treacle enough to form a ball.

This should be washed down with two or three pints of warm oatmeal-gruel, or bran-water.

The large intestines should be emptied by means of clysters administered occasionally. For this purpose,

Take of Oatmeal-gruel, three quarts;

Common salt, two ounces;

Olive oil half a pint.

Mix them.

Eight hours after giving the ball, let the horse have the following powder, dissolved in two pints of thin gruel, sweetened with honey, and repeated every six hours, until the febrile symptoms are abated.

Take of Camphor, in powder, half a
drachm;

Antimonial powder, one scruple;

Nitre,

Aniseed, of each, in powder,
one ounce.

Mix them.

The horse should have warm mashies of bran, with a small quantity of oatmeal or corn mixed in them. Hay is to be given in small quantities. The water given for drink should not be quite cold. If the mashies, &c. are refused, he must be sup-

ported by oatmeal-gruel, given three or four times daily, until his appetite returns.

If there be much cough, and without any mucous discharge from the nose, it would be more proper to give the mashies in a common nose-bag than put into the manger. The powder may be given in the following, instead of gruel :

Take of Decoction of linseed, two pints ;
Honey, three ounces ;
Tincture of opium, two drachms.
Mix them.

When the symptoms are abated, it will only be necessary to have the grooming part well attended to, and allow of walking exercise daily. Malt, and small quantities of the best oats, should be mixed with the mashies, to recruit the animal's strength ; and give the following ball every morning for ten or twelve days :

Take of Coriander seeds,
Caraway seeds, of each, in
powder, half an ounce ;
Peruvian bark, half an ounce ;
Ginger, in powder, two drachms ;
Honey, enough to form the
ball."

Whenever fever assumes an alarming appearance, the advice of a skilful Veterinarian should be procured.

FIDGET won as many capital stakes as most horses of his time. He was bred by Mr. Vernon ; was got by Florizel ; dam by Matchem, out of an own sister to Sweetbrier. In the possession of the Duke of

Bedford, he became a stallion at Wooburn, and was sire of Augusta, Cub, Victor, Frisky, Hamadryad, Nestler, Fantail, Zemise, Granadillo, Lady Sarah, St Vitus ; all winners ; as well as a great number of colts and fillies, who won large stakes at three and four years old, but ran without a name.

FIGGING. This is done by introducing a piece of ginger, previously bitten, within the sphincter of the anus, where it so irritates the animal, that he seems, by the cocking of his tail, the instantaneous erection of his ears, and the deceptive spirit he displays in action, to be a horse of very superior appearance and value.

FIRING, the application of the firing-iron, red hot, to some preternatural swelling, &c. of the horse, in order to discuss it. This is oftentimes done by clapping the firing iron to the skin without piercing it.

The firing instrument or knife ought to be somewhat rounded on the edge, and gradually thicker to the back, sufficient to keep the heat of the fire for some time. It should be rubbed clean, that no dirt or ashes may stick to it ; and not used until the flaming redness is in part gone off.

Firing is frequently adopted in strains of the back sinews, where the subject is said to have broken down ; likewise for bone and blood spavins, curbs, splents, and partially to prevent a renewal of sand-cracks, as well as for ring-bones, and lameness in the round-bone.

FISHES. Were we acquainted with no other animals than those which inhabit the land, and breathe the air of our atmosphere, it would appear absurd to be told that any race of beings could exist only in the waters ; we should naturally conclude from the effect produced on our own bodies, when plunged into that element, that the powers of life could not there be sustained. But we find from experience that the very depths of the ocean are crowded with inhabitants, that in their construction, modes of life, and general design, are as truly wonderful as those of the land. Their history, however, must always remain very imperfect, since the element in which they live is beyond human access, and of such vast dimensions as to throw by far the greater part of them altogether out of the reach of man.

That they are in every respect, both of exterior and interior conformation, well adapted to their element and modes of life, we are not permitted to doubt. Their shape is not unlike that of the lower part of a vessel. The body is in general slender, flattened on the sides, and always somewhat pointed at the head. This enables them with great ease to cut through the resisting medium which they inhabit. Some of them are endowed with such extraordinary powers

IMPLEMENTS FOR FISHING.



1 & 3. Tackle Box & Case
2 Winch
4 Basket
5 Landing Hook
6 Spear Trolling Hook
7 Swivel
8 Minnow baited

9 Dead Snap Trolling Hook
10 Dead Gorge Hook
11 Minnow Tackle
12 Live Spring Snap Hook
13 Minnow Gorge Hook
14 Drop Lead Trolling Hook
15 Baiting Ring

16 & 19. Floats
17 Twisting Engine
18 Landing Net
20 Gentle Bar
21 Dead Trolling Hook
22 Jack Lead
23 Minnow Kettle

24 Cork Float
25, 26 & 31 Palmer Flys.
27 Hawthorn Fly
28 Damoc Fly
29 May Fly
30 Ant Fly

Engraved by H. M. A. n

F I S H E S

of progressive motion, that they are able not only to overtake the fastest sailing vessels, but, during their swiftest course, to play round them without any apparently extraordinary efforts.

Their bodies are in general covered with a kind of horny scales, to keep them from being injured by the pressure of the water. Several are enveloped with a fat or oily substance, to preserve them from putrefaction, and to guard them from extreme cold.

They breathe by means of those comb-like organs placed on each side of the neck, called gills. In doing this they fill their mouth with water, then drive it backwards with so much force as to lift open the great flap, and force it out behind. And in the passage of this, among the feather-like processes of the gills, all, or at least the greater part, of the air contained in it, is left behind, and carried into the body to perform its part in the animal economy. In proof of this fact, it has been ascertained that, if the air is by any means extracted from the water into which fish are put, they immediately come to the surface and gasp for air. Distilled water is to fish what the vacuum formed by an air-pump is to most other animals. This is the reason why in winter, when a fish-pond is entirely frozen over, it is necessary to break holes in the ice, not that the fish may come to feed, but that they may come to breathe. Without this precaution, if the pond is small and they are numerous, they will die from the corruption of the water. If a string be tied round a fish in such a manner that the free play of his gills is obstructed, the animal will immediately become convulsed, and will not survive more than a few minutes.

Fishes are nearly of the same specific gravity with water, and swim by means of their fins and tail. The muscular force of the latter is very great. Their direct motion is obtained by moving the tail from one side to the other, with a vibrating motion. When about to move itself, the fish turns the end obliquely to the water, and moves it through in that position. The water re-acts obliquely against the tail, and moves him partly forward, and partly laterally. The lateral motion is corrected by the next stroke the contrary way, while the progressive motion is continued. Assisted by their tail, they turn sideways : striking strongly with it on that side, and keeping it bent, it acts like the rudder of a ship. The fins of a fish keep it upright, especially the belly fins, which act like two feet : without these he would swim with his belly upwards, as the centre of gravity lies near the back. By contracting or expanding the fins, these also assist him in ascending and descending : by inclining his tail obliquely, and turning it a little from an erect position to one side, it helps him to rise and fall.

In addition to the fins and tail, the air-bladder is of material assistance to the fish in swimming, as it is by means of this that they increase or diminish the specific gravity of their bodies. When by their abdominal muscles they press the air contained in it, the bulk of their body is diminished, their weight, compared with that of water, is increased, and they consequently sink. If they want to rise, they relax the pressure of the muscles, the air-bladder again acquires

FISHES

its natural size, the body is rendered more bulky, and they ascend towards the surface. This bladder lies in the abdomen, along the course of the back-bone: in some fish it is single, and in others double: but in the latter case the two parts communicate by a small canal. The air appears to be conveyed into it from the blood, by means of vessels appropriated to the purpose, and it can be discharged thence either into the stomach or the mouth.

Those fish that are without air-bladders have much less facility in elevating themselves in the water. The greater part of them remain at the bottom, unless the form of their body enables them to strike the water downwards with great force. This the rays do with their large pectoral fins, which are sometimes, and not improperly, called wings, since the means which these fishes use in elevating themselves are precisely the same as those employed by birds in flying. When the bladder of a fish is burst it is never afterwards able to rise. From a knowledge of this fact, the fishermen, after taking a quantity of cod-fish, are able to keep them alive for a considerable time in their well boats. They perforate the sound or air-bladder with a needle, disengage the enclosed air, and then throw them into the well, where they immediately sink to the bottom. Without this operation, they would not be able to keep them under water.

The teeth of fishes are usually situated in their jaws: sometimes, however, they are found on the tongue or palate, and even in the throat. They are generally sharp-pointed and immoveable; but in the carp they are obtuse, and in the pike so moveable as to appear fixed only to the skin.—The tongue is in general motionless, obtuse, and fleshy; and in the herring, and some other species, this is set with teeth, to enable them the better to retain their food.—Being furnished with nostrils and olfactory nerves, there can be little doubt of fish possessing the sense of smelling.

The bones are formed of a kind of intermediate substance, between true bones and cartilages. The back-bone extends through the whole length of the body, and consists of vertebræ, strong and thick towards the head, but weaker and more slender as they approach the tail. Each species has a determinate number of vertebræ, which increase in size with the body. The ribs are attached to the processes of the vertebræ, and enclose the breast and abdomen. Several fish, as the rays, have no ribs; and others, as the eel and sturgeon, have very short ones. Between the pointed processes of the vertebræ lie the bones that support the anal and dorsal fins, which are connected with the processes by a ligament. At the breast lie the sternum, the clavicles, and the scapulæ, on which the pectoral fins are placed; the bones that support the ventral fins are called the ossa pelvis. Besides these, there are often other small bones between the muscles to assist their motion.

The sight of fishes is perhaps the most perfect of all their senses.

The eye, in the greater part of them, is covered with the same transparent skin that covers the rest of the head. The use of this is, probably, to defend it in the water, since there are no eyelids.—The globe is somewhat depressed in front, and is furnished behind

FISHES

with a muscle, which serves to lengthen or flatten it, according to the animal's necessities. The crystalline humour, which in quadrupeds is flattened, is in fishes nearly globular. The eyes are usually thought to be immoveable, but gold fish have been observed apparently to turn their eyes in their sockets, as their occasions require. These fish take little notice of a lighted candle, though applied close to their heads; but on any sudden stroke against the stand, on which the bowl containing them is placed, they flounce about, and seem much frightened. This is more particularly the case when they have been motionless, and are perhaps asleep; from their eyes being always open, it is not, however, easy to discover when they are sleeping and when not.

In fishes, the organ of hearing is placed on the sides of the skull, or the cavity that contains the brain; but, differing in this respect from that in quadrupeds and birds, it is entirely distinct and detached from the skull. In some fishes, as those of the ray kind, the organ of hearing is wholly surrounded by the parts containing the cavity of the skull: in others, as in the salmon and cod, it is in part within the skull. In structure it is by no means so complicated as in the quadrupeds and other animals that live in the air. Some genera, as the rays, have the external orifice very small, and placed on the upper surface of the head; but in others there is no external opening whatever.

The food of these animals is almost universal in their own element. Insects, worms, or the spawn of other fish, sustain the smaller tribes; which, in their turn, are pursued by larger foes. Some feed on mud and aquatic plants, but by far the greater part subsist on animal food alone; and they are so ravenous as often not to spare those of their own kind. Those that have the most capacious mouths pursue nearly every thing that falls in their way, and frequently meet in fierce opposition. The fish with the widest mouth is usually victorious, and he has no sooner conquered than he devours his antagonist. Innumerable shoals of some species pursue those of another through vast tracts of the ocean; from the vicinity of the pole sometimes even to the equator. In these conflicts, and in this scene of universal rapine, many species must have become extinct, had not nature, accurately proportioned their means of escape, their production, and their numbers, to the extent and variety of the dangers to which they are exposed. The smaller species are consequently not only more numerous and prolific than the larger, but their instinct impels them to seek food and protection near the shore, where, from the shallowness of the water, many of their foes are unable to pursue them.

Fishes are in general oviparous: some few, however, as the eel, and one of the species of blenny, produce their young alive. The males have the *milt*, and the females the *roe*, but some individuals of the cod and sturgeon tribes are said to contain both. The spawn of the greater number is deposited in the sand and gravel: many of the fish, however, which reside in the ocean, attach their ova to sea weeds. The fecundity of these tribes far surpasses that of any other

race of animals. In the spawn of a single cod upwards of nine millions of eggs have been ascertained, and near a million and a half have been taken from the belly of a flounder. Many other fish are endowed with a fertility but little inferior. Such an astonishing progeny, were it to arrive at maturity, would soon overstock the waters. But the numbers are so lessened, that perhaps not one in a thousand survives the host of foes by which they are beset.

The longevity of fish is far superior to that of other creatures; and there is reason to suppose that they are, in a great measure, exempted from diseases. Instead of suffering from the rigidity of age, which is the cause of decay in land animals, their bodies still continue increasing with fresh supplies; and, as the body grows, the conduits of life furnish their stores in greater abundance. How long they continue to live has not yet been ascertained. The age of man seems not equal to the life of the most minute species. In the royal ponds at Marli, in France, there are some fishes that have been preserved tame since the time, it is said, of Francis I. and which have been individually known to the persons who have succeeded to the charge of them ever since that period. The Rev. Mr. White, of Selborne, observed the manner in which fishes die. As soon as a fish sickens, the head sinks lower and lower, and the animal stands, as it were, upon it; till, becoming weaker, and losing all poise, the tail turns over, and at last it swims on the surface of the water with its belly upwards. The reason why fishes, when dead, float in that manner is obvious, because, when the body is no longer balanced by the fins of the belly, the broad muscular back preponderates by its own gravity, and turns the belly uppermost, as lighter, from its being a cavity.

Fish, like the land animals, are either solitary or gregarious.—Some, as trout, salmon, &c. migrate to deposit their spawn. Of the sea-fish, the cod, the herring, and many others, assemble in immense shoals, and migrate in these shoals through vast tracts of the ocean.

In the Gmelinian edition of the *Systema Naturæ*, the fishes are divided into six orders:

1. *Apodal*; with bony gills, and no ventral fins.
2. *Jugular*; with bony gills, and ventral fins before the pectoral ones.
3. *Thoracic*; with bony gills, and ventral fins placed directly under the thorax.
4. *Abdominal*; with bony gills, and ventral fins placed behind the thorax.
5. *Branchiostegous*; with gills destitute of bony rays.
6. *Chondropterigious*; with cartilaginous gills.

FISTULA. This disease may be denominated a sinuous ulcer, differing from the true sinus in being of a much longer duration, in having its internal surface and external aperture indurated, and discharging from the opening a fluid of a sanious nature.

All fleshy parts of animals are liable

to fistula: in treating of the horse, however, we are more particularly to attend to that of the parts called the withers and the poll, as being the most frequently met with; and as a knowledge of the method to be pursued with these will afford us a tolerable conception how to act with the rest.

Fistula is produced by blows, bruises from the saddle, or by whatever may cause inflammation. Suppuration taking place, and the matter finding no proper outlet, it insinuates itself gradually into the cellular membrane, where, occupying the interstices of the muscles, and taking various directions, it forms what are termed fistulæ, or pipes, conveying a constant sanious discharge, as has been observed. Injuries of the bones will also produce fistulæ; and to these causes may also be added, the presence of extraneous bodies.

When we undertake the cure of a fistula, it will be requisite, in the first instance, to ascertain the direction it pursues, and whether it materially interferes with any of the larger blood vessels, so as to render a full incision into the parts a matter of too much hazard to be attempted. Finding ourselves secure from any danger of this description, we believe the most effectual practice is, to lay the fistula, or fistulæ, if more than one, so thoroughly open, that we can have a complete view of their internal surfaces. We are not, under this article, attempting to point out a remedy for a simple sinus, where the matter is in a healthy state, and requires only a sufficient passage; but for a disease, which, the discharge having been long detained, assumes a new power, indurating and corroding the contiguous parts. The means that might be found fully adequate to the removal of the former will avail little in the radical or absolute cure of the latter; a more severe system must of necessity be enforced.

When the cavities of fistulæ have been sufficiently exposed by the aid of the knife, they should be dressed with powerfully caustic compositions, until the unsound parts slough away, and the wound presents a healthy aspect. Cleanliness and the milder applications are now to be substituted, taking care that the wound is not closed before the cavities are uniformly healed.

For farther particulars on the nature and treatment of fistulæ in different parts of horses, we refer the reader to their respective heads, as **POLL-EVIL**, &c.

FLANK of a HORSE is the part lying between the last rib and the hind quarter, reaching from the part of the loins nearest the hip bone, to the bottom of the belly nearest the stifle.

FLEAM. A well-known instrument used for bleeding horses. Lancets are preferred by some with thin-skinned and

blood-horses. Different kinds of spring-fleams have been invented also; but no one has been produced of sufficient merit to supersede the old and generally established custom.

FLESHY-FOOTED. A horse is said to be fleshy footed, when that part of the bottom of the foot on each side the frog, (called the outer sole) is preternaturally prominent, constituting a convexity above the wall or crust of the hoof. In feet of this description, the outer sole, from repeated bruising and battering in constant work upon hard roads, or from an injudicious and destructive paring away with the drawing knife, is so exceedingly thin as to indent with the slightest impression, and being too weak to resist the membranous expansion within, compulsively submits to the internal propulsion, and is thrown into the projecting form already described. Great care is required in shoeing horses with this defect: the inner part of the web of the shoe should be so completely hollowed as not to admit the least chance of bearing upon the prominent part; if it does, tenderness and disquietude (if not lameness) must inevitably follow.

FLORIZEL. A bay horse, foaled in 1768, bred by Sir John Moore, Bart. sold to Christopher Blake, Esq. and afterwards passed into the hands of Richard Vernon, Esq. of Newmarket.

Florizel was got by King Herod, out of the Cygnet Mare, dam of Flimnap, King Pepin, Bourdeaux, Sting, &c. At Newmarket First Spring Meeting, 1772, (Tuesday) Florizel, 7st. 13lb. in a Sweepstakes of 300gs. each, h. ft. D. C. received forfeit from Mr. Foley's Flippanta, 7st. 10lb.; and Lord Ossory's Circe, 8st. 3lb. And on Friday, at 7st. he beat Mr. Ogilvy's Pincher, 6 years old, 8st. 7lb. B. C. 1000gs:—Even betting. In the Second Spring Meeting, (Tuesday) he won a Sweepstakes of 200gs. each, h. ft. 8st. 7lb. B. C. beating Mr. Pratt's Florist:—Lord Grosvenor's Mungo, Sir L. Dundas's Ancaster, Lord Bolingbroke's Forsett, and the Duke of Ancaster's Achates, paid:—3 to 1 on Florizel. On Saturday, he beat Mr. Fox's Valentine, aged, 8st. each, B. C. 500gs:—7 to 4 on Florizel. He also, on the same day, at 7st. received 100gs. compromise from Lord Claremont's La Signora, 5 years old, 7st. 10lb. across the Flat, 500gs. h. ft. Florizel was sold to Mr. Vernon; and in the Craven Meeting, 1773, at 8st. he received 75gs. from Mr. Fox's Zamora, 8st. 5lb. R. M. 300gs. h.

ft. In the First Spring Meeting, Lord Rockingham was to start one of two Sampson colts, against either Florizel or Bluff, by Mr. Gibson's Arabian, 8st. 7lb. each, B. C. 500gs. h. ft.—Lord Rockingham paid 138gs. compromise. In the same meeting, at 8st. 4lb. he beat Mr. Fox's Zamora, 8st. Ditch-in, 300gs.:—6 and 7 to 4 on Florizel. In the Second Spring Meeting, he walked over for the Claremont Cup, value 125gs. and 100gs. each, for horses, &c. B. C.—Lord Grosvenor's Mambrino, 5 years old; and Mr. Fox's Zamora, 5 years old, paid 50gs. each, forfeit:—Lord Farnham's Sempromius, 4 years old, was drawn by consent. In the Houghton Meeting, he won the Grosvenor Plate of 100gs. for three-year olds, 6st. 7lb. four-year olds, 7st. 9lb. five-year olds, 8st. 5lb. and six-year olds, 8st. 9lb. Ditch-in, beating Mr. Foley's Fire-tail, 4 years old; Mr. Ogilvy's Consul, 6 years old; Mr. Fox's Pastor, 3 years old; the Duke of Ancaster's Cynthia, 3 years old; Lord Farnham's Flirt, 3 years old; Mr Strode's Rantipole, 4 years old; and Mr. Burlton's Slouch, 3 years old:—6 to 4 against Florizel, and 7 to 4 against Firetail. In the Craven Meeting, 1774, he was second to Sweetwilliam, for the Craven Stakes, beating 23 others. In the First Spring Meeting (Monday) Florizel, 9st. 7lb. beat Mr. Pigott's Shark, 2 years old, 6st. 12lb. Ditch-in, 300gs.:—7 to 4 on Florizel. And on Saturday, at 10st. he beat Lord Abingdon's Myrtilla, 3 years old, 8st. Ditch-in, 200gs.:—5 to 2 on Florizel. In the Second Spring Meeting, at 9st. 2lb. he won a Sweepstakes of 100gs. each, h. ft. B. C. beating Mr. Strode's Britanicus, aged, 8st. 3lb.; Mr. Foley's Pastor, 5 years old, 6st. 12lb.; and Sir F. Evelyn's Miranda, 6 years old, 7st. 10lb.—Lord Grosvenor's Stoic, 6 years old, 8st. 8lb.; and Sir C. Bunbury's Langham, 5 years old, 7st. 12lb. paid:—6 to 4 against Florizel. In the Second October Meeting, he won a Subscription of 10gs. each, (18 subscribers) for four-year olds, 7st. 11lb. five-year olds, 8st. 8lb. and six-year olds, 9st. D. C. beating Lord Grosvenor's Sweetwilliam, 6 years old; the Duke of Grafton's Lamplighter, 5 years old; Mr. Strode's Ranger, 6 years old; Mr. Foley's Enterprize, 4 years old; and Lord Clermont's Ainderby, 5 years old:—3 to 1 on Sweetwilliam, 4 to one against Florizel, 20 to 1 against Ranger, and the same against Enterprize. In the Houghton Meeting, he won the Subscription-Purse

of 100gs. for three-year olds, 6st. 9lb. four-year olds, 8st. 3lb. five-year olds, 8st. 13lb. and six-year olds, 9st. 4lb. the last three miles of B. C. beating Mr. H. Vernon's Jack of Hilton, 3 years old; Lord Grosvenor's Morwick, 5 years old; Sir C. Bunbury's Wolsey, 4 years old; Mr. Walker's Bedfellow, 3 years old; the Duke of Ancaster's Hephestion, 3 years old; Lord March's Slim, 3 years old; Lord Bolingbroke's Tom Thumb, 3 years old; Lord Farnham's Pierrot, 3 years old; Lord Milsintoun's Desdemona, 4 years old; Mr. Douglas's Tyrant, 5 years old; and Lord Clermont's Merrylass, 3 years old:—Even betting on Florizel.

Florizel was beat eight times.—He paid four forfeits, viz. at three years old, 100gs. in a stakes won by Ramjam, who was to have allowed him only 6lb. for two years; at five years old, 250gs. in a stakes won by Mambrino, (same age) to whom he was to have allowed 8lb.; at six years old, 100gs. in a stakes won by Firetail, to whom he was to have allowed 12lb. for his year;—and when aged, 100gs. compromise to Transit, which was his last engagement.

Florizel was a stallion at Hunstanton, near Docking, Norfolk, at 10gs. and 10s. 6d.;—except in 1781, when he was stinted to 40 mares, (besides those of his owner) at 20gs. and 10s. 6d. but the mares were allowed half a peck of corn per day, and two months keep, *gratis*;—and in 1789, he was a private stallion, except for 20 mares at 21gs.—He again covered at 10gs. and 10s. 6d. until the time of his death, which happened in the latter end of the year 1791, being then aged 23.

FLY-FISHING. Fishing with an artificial fly is an interesting method of angling; yet fly fishing is not without its disadvantages, for there are many kinds of fish that will not rise at a fly, whereas, all the different species which the fresh waters produce will take a bait at bottom at some season of the year; and it is also worthy of notice, that the angler who fishes at bottom, has many months and days in the year when fish will so feed, consequently he has frequent opportunities of enjoying his amusement when the fly fisher is entirely deprived of the chance of sport by very cold, or wet weather, the winter season, &c. Fly fishing partakes more of science than bottom fishing, and of course requires time, study, and practice, before the angler can become any thing like an adept at making or casting a



fly. The young angler would gain much more information on the subject by attending a fly fisher while he is casting or making an artificial fly; if he cannot avail himself of such knowledge, he must persevere and strictly follow the directions offered to his notice. There are many excellent fly fishers who never trouble themselves to make a fly, yet kill trout in every trout stream they fish, with flies bought at the London tackle shops, where the angler may get a fly made to any colour, pattern, or shape he may want; indeed, flies are now made so well at those shops, that it is scarcely worth the angler's trouble to make them. I should recommend the young fly fisher, in the first instance, to purchase his artificial flies; but, after some experience in the art, to make his own. In purchasing artificial flies the following will be proper to select: red and black palmers, red and black hackles, grouse, red and black ant-flies, the yellow May fly or green drake, stone fly, small black gnat flies, the red spinner, and the white moth. Having purchased the above assortment of flies, the angler should make himself well acquainted with their several forms, the number of wings, and every other particular, that he may be able to know every difference between the several kinds, thereby guarding against having flies imposed on him of a species different to what he may think proper to order.—The flies above enumerated are all of established credit; their respective merits, the way and materials of which they are made, will be found under their different names. In many places certain flies are preferred; the bean or thistle fly has been considered a secret in some parts of Wales and much valued. There is a fly used very much at Watford, in Herts, called Harding's fly, or the Coachman's; of the merits of such flies experience will teach how to appreciate. Note, make it an invariable rule to try a red or black palmer, first in the morning and last in the evening, when whipping for trout; the other part of the day winged flies.

Concise Directions how to make an Artificial Fly.—Take some fine silk, of the proper colour, and wax it well with bees' wax, then hold the bend of the hook between the fore-finger and thumb of the left hand, and with the right give the silk two or three turns round the shank, and fasten it; then take a small feather, of the colour you intend the fly should be, strip off some of the fibres towards the quill, and leave a sufficient quantity for

the wings, holding the point of the feather between your finger and thumb, turn back most of the remaining fibres, and laying the point end of the feather upon the hook, give a few more laps round it with your silk, and fasten; then twirl the feather round the hook till all the fibres are wrapped upon it, which done, fasten and cut off the two ends of the feather; then, with dubbing of the proper colour twisted round the remaining silk, warp from the wings towards the bend of the hook, till the fly is the size required. Before the young artist tries his skill at dressing or making a fly, he should take an artificial one to pieces, and observe well how it is formed.

The knowledge how to make the May flies is first requisite to be understood; for these flies are of so much value to the angler, that every one who wishes to excel in fly-fishing, should learn how to make them as soon as possible.

The Artificial Green Drake or Yellow May Fly and others.—Make the body of seal's fur, or yellow mohair, a little cub fox down, or hog's wool, or camel's, and bear's hair mixed; warp with pale yellow and green silk, waxed to imitate the joints of the fly's body under the wings; the wings to be made of a mallard's or wild drake's feather, dyed yellow, (put a handful of horse radish leaves into a pint of water, to which add a piece of alum the size of a small walnut; simmer the whole for some time, and it will then dye feathers, silk, &c. a yellow of any shade and fast colour;) three whisks for the tail from a sable muff, or the whiskers of a black cat, or hairs from a dog's tail. When this green drake is made small, it is then generally denominated the yellow May fly.

Grey Drake.—Make the body from a white ostrich's feather; the end of the body next the tail, peacock's herl; warping of ash-colour, with silver twist, and black hackle; wings of a dark grey feather of a mallard,

Stone Fly.—To form the body of this fly, take bear's dun, and a little brown and yellow camlet well mixed, but so placed that the fly may be more yellow on the belly, towards the tail underneath, than in any other part; place two or three hairs of a black cat or dog, beard or whiskers, or the fibres of a dark hackle, or the bristles that grow under the chin of horses, on the top of your hook, in the arming, so as to be turned up when you warp on your dubbing, and to stand almost upright,

branching one from the other; rib with yellow silk, make the wings large and long, of the dark grey feather of a mallard.

The formation of these artificial May-flies will be rendered easier, by an intimate acquaintance with the natural ones.

Natural May Flies, Ephemera, Vulgate May Fly, or Green Drake.—This May-fly is bred from the cad-worm, and is found in numbers beside most small gravelly rivers, near the banks where bushes grow and over-hang the water, to which places they fly when they change from their chrysalis state: its wings (which are single) stand high on the back, like the butterfly

The body of this fly is a yellow, ribbed across with green; the tail consists of three small whisks, quite dark, and turned upwards to the back, like the tail of a drake or mallard; from the green stripes on the body, and its turned up tail, this May fly receives the name of green drake; in some places it is also called the cock-up or tilt-up tail, so is the grey drake.

Grey Drake.—The grey drake, in shape and size, is like the green drake, but different in colour, being a lighter yellow, and striped with black down its body; the wings are glossy black, and thin like a cob-web.

Stone Fly: called the Water Cricket or Creeper while in the state or form of a maggot.—The stone-fly escapes from the husk or case before the wings are sufficiently grown to enable him to fly, and creeps to the crevices of stones, from which circumstance the name is derived: they are found in almost all trout streams, or stony rivers, and are known by the angler for trout as a killing bait. The body of the stone-fly is long and thick, of a brown colour, ribbed with yellow, and has whisks at the tail, and two small horns on his head: when full grown, the wings are double, and of a dusky dark-brown colour. This fly has several legs, and uses them more than his wings, as you may often find them paddling on the top of the water, only moving their legs. The three flies just described, namely, the green-drake, the grey-drake, and the stone-fly, are all known by the name of the May-fly. Although the green drake, the grey drake, and the stone fly, are all termed May-flies, yet the young fly fisher should be apprised, that when the May fly is spoken of among anglers, they generally mean the green drake, or as some call it, the yellow May fly, from the colour of its wings, and it

certainly is the most general killing May fly.

Plain Palmer or Hackle.—First provide a short length of gut, about fifteen inches long, and a hook, No. 7, or 8, some red silk well waxed with red wax, a fine red hackle, and some ostrich feathers: hold the hook by the bend, between the fore-finger and thumb of the left hand, with the shank towards the right hand, and with the point and beard of your hook nearly parallel with the tops of your fingers, then take the length of silk about the middle, and lay the one half along the inside of the hook towards your left hand, the other to the right, then take that part of the silk that lies towards your right hand, between the fore-finger and thumb of that hand, and holding that part towards your left tight along the inside of the hook, whip that to the right, three or four times round the shank of the hook, to the right hand; after which, take the gut, and lay one end of it along the inside of the shank of the hook till it comes near to the bend, then hold the hook, silk, and gut tight between the fore-finger and thumb of your left hand, and afterwards give that part of the silk to your right hand three or four whips more over the hook and gut, till it comes nearly to the end of the shank; make a loop and fasten it tight; then whip it neatly again over silk, gut, and hook, till it comes near the bend of it, after which, make another loop, and fasten it again; then if the gut reaches farther than the bend, cut it off, and your hook will be whipped on, and the parts of the silk will hang from the bend of it: then wax the longest ends of the silk again, and take three or four strands of an ostrich's feather, and holding them and the hook as in the first position, the feathers to the left hand, and the roots of them in the bend of the hook, with the silk you waxed last, whip them three or four times round, make a loop, and fasten them tight; then turning the strands to the right hand, and twisting them and the silk together, with the fore-finger and thumb of the right hand wind them round the shank of the hook till you come to the place where you fastened, then make a loop and fasten them again: if the strands should not be long enough to wind as far as it is necessary round the shank, when the silk gets bare, you must twist others on it; after which, take a pair of small-pointed sharp scissors, and cut the palmer's body to an oval form. Both ends of the silk being separated at the bend and shank end of the hook, wax

them both again; then take the hackle, hold the small end between the fore-finger and thumb of your left hand, and stroke the fibres of it with your right contrarywise to which they are formed; keep your hold as in the first position, and place the point of the hackle in its bend with that side which grows nearest the cock upward, then whip it tight to the hook—in fastening it, avoid tying in the fibres as much as possible: the hackle being fastened, take it by the large end, and keeping the side nearest the cock to the left hand, begin with your right hand to wind it up the shank upon the dubbing, stopping every second turn, and holding what you have wound tight with your left fingers, whilst with a needle you pick what fibres may have been taken in: proceed in this manner until you come to the place where you first fastened, and where an end of the silk is, then clip those fibres off the hackle which you hold between your fore-finger and thumb, close to the stem, and hold the stem close to the hook; afterwards take the silk in your right hand, and whip the stem quite fast to it, then make a loop and fasten it tight. Take a sharp knife, and if that part of the stem next the shank of the hook, is as long as the part of the hook which is bare, pare it fine; wax your silk, and bind neatly over the bare part of the hook, then fasten the silk tight, and spread some shoe-maker's wax lightly on the last binding; then clip off the end of the remaining silk at the shank and bend of the hook, also any fibres that may stand amiss.

Directions for making a Golden or Silver Palmer.—The dubbing the same as the palmer, ribbed with gold or silver twist, with a red hackle over all. When you whip the end of the hackle to the bend of the hook, you must do the same to the gold or silver twist, first winding either of them on the dubbing, observing that they lie flat on it, and then fasten off, then proceed as before directed with the hackle.

Small light coloured flies are most proper for clear shallow water, during a bright sky, and the larger sort for dark weather, and thicker or deeper waters.

Materials for making Artificial Flies.—Get seals' and moles', squirrels' and water rats' furs; also mohairs, black, blue, purple, white, and violet; camlets, of every hue and colour; and fur from the neck and ears of hares, hogs' down, and bears' hair; hackle feathers; get them of the following colours, but not too large: red, dun, yellowish, white, and perfect

black. Feathers to form wings, &c. of flies, are got from the mallard and partridge, especially those red ones in the tail; feathers from a cock pheasant's breast, and tail, the wings from the blackbird, the brown hen, the starling, the jay, the land-rail, the thrush, the field-fare, the swallow, and the water coot; the feathers from the crown of a plover, green and copper-coloured; peacock's and black ostrich's herl, and feathers from the heron's neck and wings. You must also be provided with marking silk, fine, strong, and of all colours; floss silk, gold and silver flattened wire or twist, a sharp knife, hooks of all sizes, shoe-maker's wax, a large needle to raise your dubbing when flattened, and a pair of sharp pointed scissors. A little portable vice is necessary to fix on the table, to which you may occasionally fasten your hook while dressing a fly.

A List of Flies for every Month during the Season, commencing with April.—Artificial flies are called dub flies when the body is principally made of wool or mohair, when chiefly made of feathers they are called hackle flies. If the body is like a palmer to which is added wings, then it is properly called a palmer fly.

There are upwards of a hundred different kinds of flies made for fly fishing, suitable for every month during the season, and which may be purchased at a small expense at the tackle shops, should the angler decline making them himself.

April.—The cow-dung fly may be used from the first of this month, and is a killing fly to the end. The brown or dun drake is a good fly in the middle of the day, particularly if the weather proves gloomy.

May.—The stone-fly may be used all this month with much success, but more particularly in the mornings. The yellow May fly will answer, especially in the evenings, during the whole month. The black caterpillar fly is a good fly, and so is the black-thorn fly this month, in small rivers and trout streams; it kills best in those days that succeed very hot mornings. The fly called the camlet, may be used all day till the middle of June, for small fish.

June.—The lady-fly is now a good one, particularly when the water begins to brighten after a flood. The black gnat-fly in an evening, especially if the weather has been warm and showery. The blue gnat is only used when the water is very fine and low. The red spinner is an excellent fly, but most killing when the water is dark, and late in the evening.

July.—The orange-fly is an excellent bait, particularly if this month proves close, hot, and gloomy. The large red ant-fly is killing for some hours in the middle of the day.

The badger-fly is good in the early part of this month, and in the coolest days.

August.—The small red and black ant flies are good killers for three or four hours in the afternoon, and sometimes till sun-set, if the sky is occasionally obscured. The small fly, called the light-blue fly, is known to most fly-fishers to be a killing bait from morning till afternoon.

September.—The willow fly is most to be depended on this month, and for the remainder of the season: any of those noticed for July or August may also be used occasionally. All the flies I have enumerated are for killing trout, but you may also take chub and dace with them, and perchance a salmon. For making these flies, mohair of various colours, is used; also seal's wool, bear's and camel's hair, sheep's wool, badger's hair, hog's down, camlets of all colours, the fur of hares, squirrels and foxes, feathers from the neck of the game cock, called hackles; likewise feathers from the peacock, &c. and pass your hook through them, under their wings.

Natural fly-fishing is generally termed dapping or dapping, and is practised with a stoutish rod, having a light stiff top, running tackle, strong gut or hair line, and No. 7 or 8 hook, for trout or chub. When dapping with a May fly, put two or three on the hook, which should be carried through the thick part of the fly's body under the wings, with their heads standing different ways, and take care that your fingers are always dry when baiting, or you will soon kill or spoil the bait. Bait the same way with the black ant fly in June, in July use the wasp fly, in August the hazel, or button fly, in September the badger fly, in March and April the thorn fly, yellow dun, and stone flies. The stone fly, when in the state of a maggot, is called the water cricket or creeper, and is to be found in most small stone rivers or trout streams in April, lying under hollow stones. In those waters where this cricket is found, it will prove an excellent bait the latter end of April; put two or three on a No. 9 hook, and use it as a tripping bait in the middle of the stream. This cricket is a good bait to dap with about noon in the said month.

In this mode of fishing, it is absolutely necessary to kneel down or stand behind a tree, bush, high weeds, or something to

hide your person, or the fish will not rise to your fly or bait. You must draw out as much line as will just let your baited hook reach the surface of the water; then with the top of your rod a little raised, keep the bait in motion, and if you see several fish, cautiously guide your bait to the largest, play it a little an inch or two above the water, by gently shaking the rod, then let it drop just before the fish. When a fish takes your bait, after a moment, strike smartly, and if not too large to endanger breaking, lift him out immediately, for by playing them while dapping, you are very likely to scare away the others by exposing yourself to their sight; but if the wind is brisk, and you stand sufficiently high on a bank or bridge, you may let several yards of line out. The angler may play his bait on the top of the water in streams whose water is nearly level with the bank with success, because he may keep far from the water and yet see a rise.

The best bait in June, July, and August, for chub, is the humble-bee during the day; late in the evening, a large white moth, bred in willow trees. When you bait with a live bee, it is necessary first to extract its sting.

They will also take the cock-chaffer or May bug, (but before you put this insect on the hook, take away its upper horny wings) grass-hoppers, the fly called father long-legs, all kinds of moths and small butterflies, also large blue flies, bees, and wasps, generally preferring the largest.

For Dace the best bait is the common house fly; you may put two on a No. 10 hook. The time, the last three hours before it is dark, you may use two or three hooks at a time, tied on about three inches of hair or fine gut, and fastened on the line about fourteen inches apart.

For Bleak.—One common flesh or house fly on a No. 11 or 12 hook. Dace and bleak are also caught by whipping with an artificial fly.

In casting or throwing a fly while yet a novice, observe the following rules: having fixed the winch on the butt of your rod, draw the line through all the rings of the rod to the top, and then again as much more as will reach within a yard of your butt-end from the top, the line will then of course be nearly as long as the rod, which will be quite as much as is necessary for a learner to throw; indeed, when you have attained the art of throwing a fly thirty yards to any given spot, you may use line *ad libitum*. Having fastened your

bottom with the line, hold the hook by the bend in the left hand between your thumb and finger; the rod in the right hand pointing to the left; bring the top of the rod gently round to the right, making a sweep over your right shoulder, casting forward the fly, which you let go the moment you are in the act of throwing; practise this with a moderate wind at your back, either on land or in water till you have gained the art.

The lighter your fly and line descends on the water, the greater the chance of a bite. Never use more than one hook on your line at a time, till you feel fully confident you can throw your line with one, to any given distance or place: when you commence fishing any water, endeavour to keep the wind at your back, as it enables you to stand farther out of the fish's sight, and you have the additional advantage of fishing both sides of the stream, if not very broad. In small streams, where the middle is shallow, you will always find a rippling on the surface in the shallow part: when you cast in your bait, always take care to throw it in on the opposite side, and draw it slowly to the rippling, letting it float down some distance, and if the fish like your fly, they will certainly take it; or if you see a fish rise in any part of the water, immediately throw your bait just above it, draw the fly gently over the spot where the fish rose, and you will generally take the fish.

FOAL is the produce of Horse and Mare in a general sense, including both male and female; but when a more particular description is required, it is customary to say either a colt, or a filly foal.

FOIL. A term used in hare hunting. When, during the chase, a hare, after a head or double, runs over the ground she has ran before, she is then said to be running the foil. Old hares, who have speed enough to break away, and get considerably a-head, almost invariably throw themselves out to the right or left, double, and quat; particularly if a hedge-row, hedge, fern, furze, or any kind of covert presents itself favourably for the purpose. The hounds continuing to run the scent to the spot where she made her head, over-run the hare, and having no continuance of scent, are of course at fault; during which delay of trying forward, trying back, making a cast to the right, then a cast to the left, the hare slips into her foil; by repeatedly running of which with the same instinctive sagacity, she as repeatedly saves her life; without which,

and many similar innate shifts to avoid their numerous enemies, there would not long be a hare left in the country.

FOMENTATION is, perhaps, the most generally useful of all external applications, and cannot be too much encouraged. In all inflammatory tumours and enlargements arising from strains, blows, bruises, and various other injuries, the efficacy of hot and persevering fomentation is well known. Its properties are twofold, inasmuch as it assists nature in whichever is her most predominant effort, either for absorption or suppuration.

Fomentations are prepared by boiling three or four double handfuls of the different kinds of aromatic garden herbs in six quarts or two gallons of water, occasionally stirring them for a quarter of an hour; then let the part affected be patiently fomented with sponges or flannels, alternately dipped in the decoction, as hot as it can be consistently used without injury to the hair. If the tumour, or enlargement, does not threaten suppuration, the absorption may be assisted by a gentle persevering friction in hand-rubbing, previous to the application of such repellent as may be thought applicable to the case: on the contrary, should a formation of matter have evidently taken place, the intention of nature cannot be too expeditiously promoted; an emollient poultice should instantly follow the fomentation, and both be repeated once or twice a-day, according to the magnitude of the emergency.

The herbs chiefly in use for fomentations (and from which any three or four may be selected) are Roman and common wormwood, mallows and marshmallows, lavender leaves and flowers, rosemary leaves, camomile flowers, elder flowers, and bay leaves.

FOOT. The foot of a horse extends from the fetlock-joint to the outer sole at the bottom of the hoof: it includes the coronary-bone, the nut-bone, and the inner sole, in which it is deposited; as well as the frog and the wall or hoof surrounding and supporting the whole.

FOREHAND of a horse. That part of the animal which is before the rider. See the articles Conformation, &c.

FOREHEAD of a horse. This should be somewhat broad: some would have it a little raised; but a flat one is most beautiful. A horse should have in his forehead what is called a feather. It is also to be desired that he should have a star or blaze in his forehead.

FORE-LEGS. The fore-legs of a horse are generally considered to begin at the lower extremity of the shoulder-blade: they consist of what are termed the arms, (or fore-thighs,) which extend to each knee; the shank-bone from the knee to the fetlock-joint; the fetlock-bone is continued from thence to the coronary-bone, into which it is inserted; the coronary-bone in part fills the cavity, or box of the hoof, being lodged in the coffin-bone, supported by the nut-bone behind; these last are deposited in the membranous mass denominated the inner sole; the whole being terminated by the bottom of the hoof, the frog, and the outer sole. The fore-legs, to be uniform, (in a front view,) should be wide at the upper part next the breast, strong and broad in the arm, bony below the knee, free from splents, a broad sound hoof, firm sole, and a frog without thrushes.

FOREST. A forest is a large tract of land in pasture, many miles in extent and circumference, the property of the crown, mostly well stocked with timber, (from whence the navy is supplied,) as well as with a variety of underwood, furze, fern, &c. for the breeding and preservation of both venison and game. Forests are of great antiquity, and their immunities are protected by laws peculiarly and solely adapted to their preservation; the execution of which are lodged in principal officers, and their subordinates, justices in eyre, chief wardens, verderers, regarders, foresters, woodwards, agistors, rangers, beadles, and keepers.

A forest has its foundation under a commission bearing the great seal of England, and when proclaimed through the county in which the land so appropriated lies, "that it is a forest, and to be governed by the laws of a forest," it then becomes a forest upon record, and the officers before mentioned are appointed. A forest has its "boundaries," its "purlieus," its "properties," its "courts," with a variety of regulations equally uninteresting and unentertaining.

There were sixty-nine forests in England, of which the New Forest, Windsor Forest, Sherwood Forest, Charnwood Forest, Whittlebury Forest, and the Forest of Dean, have always been considered the principal.

The beasts of forest, in all ancient records, were denominated "beasts of venery," and consisted of the hart, hind, hare, boar and wolf: the complete extinction of the two latter has, however,

long since rendered the term unnecessary.

FOREST COURTS are the courts occasionally held for executing the forest laws. The principal of which is, the court of the chief justice in eyre; this is a court of record, and is only held once in three years. The court of swainmote consists of the verderers, who, in some degree, are the judges; as they receive presentments, and hear evidence, as well as enquire of offences to convict, but cannot pass judgment, that power being reserved to the court of the chief justice (called "justice seat") alone. The court of swainmote can only be held three times a year. The court of attachment is likewise a meeting of the verderers, and held once in six weeks, being called the "forty days court."

FOREST LAWS are the laws framed for the protection of vert and venison within the precincts of a forest. It is the business, and the duty, of all subordinate officers, to apprehend offenders of whatever description, and present them to the forest courts, in order to their being punished according to the magnitude of the offence they may have committed.

FORKED HEADS. All deer heads that bear two croches on the top, or that have their croches doubled.

FORMICA. A distemper so called, which commonly seizes upon the horn of a hawk's beak, which it will eat away, and generally supposed to be occasioned by a worm. It may be perceived by the beak becoming rugged, and it will ultimately separate from the head. Old falconers inform us, that to remedy this malady the gall of a bull must be broke into a dish, to which must be added the powder of succotrine aloes; these must be well mingled together, and the diseased part anointed therewith twice a day (care being taken not to touch the eyes or nares) till the hawk be perfectly cured.

A disease called the *formica* sometimes appears in the ears of dogs, particularly in the ears of spaniels and pointers. In this disease the ears become scabbed either from being torn with thorns or something of this sort, and the irritation thence arising, frequently induces the animal to scratch the affected part till the sore spreads, and a disgusting mangy appearance presents itself. For the cure of this disorder, sportsmen of the old school prescribe the following:—Infuse four ounces of gum dragon in the strongest vinegar that can be procured, for the space of

eight days, and afterwards bruise it on a marble stone, as painters do their colours; then add two ounces of roach alum and galls; mix all well together, and apply it to the affected part. Now, this may be all very well in its way, and might appear highly scientific at the time it was originally prescribed; but as the indispensable period of its preparation was *eight days*, the ears of a dog thus affected would frequently present a dreadful appearance owing to the ravages of the disorder. Therefore, putting aside this antiquated system altogether, the writer can very confidently recommend a little mercurial ointment for the purpose, the application of which he knows from experiment many times repeated, to be a very effectual and a very speedy cure. If the affected parts are rubbed with mercurial ointment as soon as the disease is observed, one application will often be sufficient: let it be repeated, however, according to the virulence of the disease.

FORM is a spot in which the hare takes her seat at the dawn of day. When found sitting she is said to be in her *form*. Hares vary their sitting according to the season, the sun, and the wind. Soon after harvest, they are found in wheat, barley, and oat stubbles, as well as in rushy, grassy moors; after these become bare, they retire to coverts, banks, hedges and hedgerows. After Christmas, and in the spring months, dry fallows, particularly those lying towards the sun with an ascent; though the buck hare, as the season advances, will frequently sit in splashes and moist situations.

FOUL FEEDERS. Appetite, if good, in either man or beast, ought to be, and in most cases is, a clear criterion and proof of health. However, instances are not wanting, where a rule so seemingly just is sometimes subject to exceptions. The quantity of good and healthy food taken into the frame, is by no means an infallible proof of strength, or of what work the subject is, or ought to be, equal to: some horses are the greatest slugs in nature, though always feeding; while others, who undergo thrice their labour, do not consume even a moderate share of what is placed before them.

When the appetite of a horse is seemingly never satisfied; when he displays an immoderate and impatient desire for food at all times; when, in failure of repeated supplies of hay and corn, he is constantly consuming his litter, such a horse is generally, and with strict justice, denominat-

ed a coarse and foul feeder; the result of which frequently is, that he soon becomes as foul in his blood, his coat, and condition, as he has previously proved himself in his inclination. The ready road to relief in a case of this kind, is to unload the frame of its accumulated rubbish by a course of physic; the rack rein and the muzzle are then such easy alternatives, that those who do not choose, or are too indolent, to adopt them must sit down easy under the defect.

Some there are who attribute the voracious dispositions, and strong digestive powers, of such horses to their being affected with worms.

Horses of a contrary description, who labour occasionally under a loss of appetite, is no such matter of ambiguity as what has been just described; but may with certainty be ascribed to its proper cause, by minutely attending to such signs, and predominant symptoms, as present themselves to the eye, and to the touch, of the diligent enquirer. A loss of appetite in horses whose constitutions are generally good, and who have not been remarked for refusing their corn, or being off their feed, sufficiently indicates some tendency to either slight and temporary indisposition, or impending disease; as cold, cough, febrile heat from the fatigue of a long journey on the road, or exertion in the field; intestinal disquietude, from flatulent affection, or pain in the kidneys; as well as a stricture upon the neck of the bladder, proceeding from a preternatural retention of urine, in having travelled too far "without drawing bit." This defect, proceeding from whatever cause, cannot be too soon properly attended to: early and attentive investigation should be made as the first and most necessary step to the acquisition of relief. Admitting it to have originated in any of those causes already described, there is very little doubt to be entertained, but a moderate bleeding, a cordial ball, a mash of ground malt and bran, equal parts, with warm soft water, and a little nursing, if expeditiously proceeded upon, will soon set all to rights again.

Not so with those whose defect is constitutional, proceeding from an inexplicable degree of irritability, so generally and palpably evident in both attitude and action; in the stable, or out, they never appear perfectly at ease; the eye, the ear, seeming alarmed with every sound, as if in perpetual search of new causes to keep up the unceasing spirit of discontent and

eternal disquietude. Upon the road in company, or in the field with hounds, they invariably and impatiently court competition, making the most violent exertions to prove their great, passionate, and ill-tempered desire for superiority, so that horses of this description, after a journey of some length, or chase of severe duration, are not only off their appetites for two or three days, but hardly fit to be seen again for a week. They are mostly light, and what is termed thin in the carcase; carry no flesh, with or without work; and for that reason, do no credit in appearance to their master. Yet, strange as it may appear to those unacquainted with the fact, horses or mares of this restless, unsettled disposition, are almost so invariably good and persevering in nature, that they will continue to exert themselves, till, becoming totally exhausted, they must sink under fatigue, rather than permit themselves to be restrained; a palpable contrast in spirit to those voracious, gummy-legged gluttons, who, after an insatiate series of gormandizing and rest, absolutely tire (or "knock up") in the second stage, or first twenty miles, of a journey.

This defect, (or more properly deficiency in appetite and disinclination of food,) whether proceeding from the fiery volatility of temper impatient of restraint, or a peculiar laxity of the parts necessary to strong digestion, is so clearly inherent, so truly constitutional, that a well-founded expectation of permanent relief, or total eradication, is not to be formed upon any change that can be made in food, or improvement in attention. Such horses, however, if their paces are good, and they are desirable in other respects, should not be too hastily disposed of; instances having been very frequent, where horses of such irritable habit, and fretful disposition, when young, have, when accustomed to the same stable, gentle usage, and to one rider only, become as settled feeders, good goers, round carcased, and firm fleshed horses, as any in the kingdom. Some inducement to feed after the fatigues (or frettings) just recited, may be attempted by the means before described; few occasions will occur where the malt mashes will be refused; the novel fragrant attracts attention, and, when once taken, its invigorating property soon appears. In cases where the stomach continues weak, the carcase thin, and appetite not restored, an occasional use of the pectoral cordial balls, once or even twice a day, is the proper substitute for aliment, and will

seldom or ever fail to produce the desired effect.

FOUNDER. A disease to which horses are subject, after being ridden violently, and afterwards exposed to sudden cold, or washed with cold water. Two kinds of founder have been described; namely, chest-founder, and founder in the feet. There is, however, no good reason for this distinction, as will appear from the following account, given by Mr. Clark, of the symptoms that take place in the different stages of this disorder, together with the circumstances that have appeared on dissecting those horses that have died of it.

The founder, he says, always proceeds from cold too suddenly applied to the body, and whether it be from a current of cold air, or from plunging the body into cold water, when over-heated, the effects are the same. The symptoms at first are these: when the horse begins to cool, he appears very stiff and feeble in his fore-quarters, and, when forced to move forwards, he collects his body, as it were, into a heap, and brings his hind feet as far forward under his body as he possibly can, in order to remove the pressure of the weight of his body from the fore legs and feet; at the same time, he sets his fore feet to the ground with seeming great pain; his fore parts are extremely hot, the legs considerably swelled, and evidently painful to the animal when touched; a violent fever succeeds, which, if not properly treated, terminates in death, or, if the horse survives the shock, in incurable lameness. On dissecting the legs and shoulders of those horses that have died, after a few days' illness, of this disorder, the blood is generally found extravasated, the parts having a black appearance, especially between the skin and the flesh. The same blackness is likewise observed in the cellular membrane, between the interstices of the muscles and tendons; the texture of the vessels too is destroyed, and their substance mortified.

The following case was communicated to Mr. Clark by a very judicious farrier in London. A gentleman, being eighteen miles distant from London, was anxious to be in town before it was dark. He rode his horse very hard through a deep snow, during a severe frost. When the horse was suppered up, after being well rubbed over, he lay down, and was found in the same situation next morning, but unable to rise, or stand when up. On the third day, both his fore hoofs fell off. This was a founder of the very worst kind.

The excessive coldness of the snow, to which his hoofs and legs had been so long exposed, when they were overheated, produced the effects above related in the case of founder. The violence of the inflammation that had taken place within the hoof had destroyed the texture of the vessels, &c. Hence all manner of connection between the hoof and internal parts of the foot being destroyed, they became loose, and fell off.

This fact, and the reasoning upon it, may, perhaps, serve to explain a remarkable circumstance which happened to a horse in one of the mail-coaches. It took place at the time when there was much ice and snow on the ground. This very spirited animal lost both fore hoofs in the performance of his task, and yet went through to the end of the stage, till which time this cruel circumstance was not discovered, nor any thing beyond a slight degree of lameness in his gait observed by the coachman. The poor animal was, of course, destroyed.

In hunting, when horses are over-heated, and go through deep water, especially if they are obliged to swim, they soon after become faint, jaded, and tired.

FOWLING is a term scarcely known among modern sportsmen : it was formerly used to express the taking of birds by the net ; and at present it may not be altogether obsolete in those places where WILD FOWL SHOOTING is much followed, to which article the reader is referred.

FOWLING BAG, OR NET. A bag carried by shooters for the purpose of receiving such game as they may be able to kill—it is too well known to need further description.

FOWLING-PIECE. This extraordinary engine, so essential to the sportsman, has undergone so many alterations, and has experienced so many improvements, as to be scarcely any longer recognizable as the offspring of the original hand-gun, as, in fact, the descendant of that clumsy instrument, which it is supposed was introduced into this kingdom by Edward IV. in the year 1471. We may trace the parent, however, still further back ; and in order that this article may be rendered as complete as possible, we will trace the progress of the projectile engine now under consideration, from the earliest period to the present time.

There are writers, who carry the invention of artillery back to very remote antiquity ; and, though it does not seem possible to fix upon the precise period of

its introduction, yet, there is every reason to believe it quickly followed the discovery of that extraordinary combustible, gunpowder (see GUNPOWDER). The ingenious translator of the *Gentoo Laws*, finds fire-arms, gunpowder, and *cannon*, mentioned in that code, supposed at least coeval with Moses. "It will, no doubt, (says he) strike the reader with wonder to be informed of a prohibition of *fire-arms* discovered in records of such unfathomable antiquity ; and he will probably hence renew the suspicion which has long been deemed absurd, that Alexander the Great did absolutely meet with some weapons of that kind in India, as a passage in Quintus Curtius seems to ascertain." There is also, (says Mr. Grose) the following antient testimony to this point in Grey's *Gunnery*, printed in 1731. In the life of Appolonius Tyanæus, written by Philostratus, about fifteen hundred years ago, there is the following passage concerning a people of India, called Oxydracæ :—"These truly wise men dwelt between the rivers Hyphasis and Ganges ; their country Alexander the Great never entered, deterred not by the fear of the inhabitants, but, as I suppose, by religious considerations ; for, had he passed the Hyphasis, he might doubtless have made himself master of the country all round them ; but their cities he could never have taken, though he had led a thousand as brave as Achilles, or three thousand such as Ajax, to the assault : for they come not out into the field to fight those who attack them, but these holy men, beloved by the gods, overthrow their enemies with tempests, and thunderbolts, shot from their walls. It is said, that the Egyptian Hercules and Bacchus, when they overran India, invaded this people also ; and, having prepared warlike engines, attempted to conquer them ; they made no shew of resistance ; but, upon the enemy's near approach to their cities, they were repulsed with storms of lightning and thunderbolts, hurled upon them from above."

In a work, entitled the *Gunner*, by Robert Norton, and printed in London in the year 1664, the author states that the Uffano reporteth, that the invention and use of *ordnance* (and consequently of gunpowder) took place in the fifty-eighth year of our Lord, and was practised in the "great and ingenious kingdom of China ; and that in the maretime provinces thereof, there yet remain certaine peaces of ordnance, both of iron and

brasse, with the memory of their yeares of founding engraved upon them, and the armes of king Vitey, who, he says, was the inventor."

The preceding quotations, however, it must be allowed, are extremely vague, to say the least of them; and may perhaps be regarded rather as the wanderings of a restless imagination than as the sober data of truth. The following extracts may, in all probability, be relied on.

Polydore Vergil, who died in 1555, after noticing the discovery of gunpowder, informs us, that an obscure German invented an *iron tube*, and taught the Venetians the use of *guns* in the year 1380.

The battle of Cressy was fought in the year 1346, and an historian who lived at that time is quoted by Spondanus as affirming that the English greatly increased the confusion the French had been thrown into, by discharging upon them from their *cannon*, hot iron bullets. Three years before the battle of Cressy, the Moors were besieged by the Spaniards in the city of Algeziras; and we learn from Mariana, the Spanish historian, that "the besieged did great harm among the Christians with *iron bullets* which they shot." The same author adds, "this is the *first time* we find any mention of *gunpowder* and *ball* in our histories."—The Earls of Derby and Salisbury are mentioned by Mariana as having assisted at the siege of Algeziras; and as they returned to England in the latter end of the year 1343, it is not an improbable conjecture, that, having been witnesses of the havoc occasioned by the Moorish firearms, they brought the secret into England, and introduced the use of artillery into the English army at the battle of Cressy.

If we are to believe father Daniel, the French had *cannon* in the year 1338; though it does not appear they made any use of it in the battle of Cressy, which did not take place till eight years afterwards. But there is reason to believe that *guns* or *cannon* were known in Germany forty years prior to this period, as in the armoury of Amberg, in the Palatinate of Bavaria, there is a piece of ordnance, on which is inscribed the year 1303.

The Danes are said to have used *guns* as early as 1280, but the account seems more than doubtful. There are passages in the history of English wars, which assert the employment of *artillery* antecedent to the above periods; for instance, if we are to credit John Barbour, Arch-

deacon of Aberdeen, Edward III. had *artillery* in his campaign against the Scots in the year 1327.

In 1339, the Scots used *battering cannon* at the siege of Stirling, which cannon had no doubt been sent them by their French allies. At the siege of Calais in 1347, "*gunners* and *artillers* appear in a manuscript list of the English troops in the Harleian collection. The Earl of Pembroke, who commanded a British fleet in the year 1372, was taken prisoner by a Spanish squadron superior in numbers, and which were (perhaps for the first time) provided with *cannon*. However, half a century afterwards, the English ships of war were provided with very few guns, seldom more than two, and those not mounted so as to be altered occasionally in their direction, a circumstance, the motion of the sea considered, which must have rendered them of little service.

In 1378, Richard II. sent to Brest "two greater and two lesser engines, called *cannons*, and 6000 stone bullets. John of Gaunt, who had the command of the army, attempted to take St. Maloes, but was baffled by the skill of the great Du Gueschin, although, it is said, he had a train of 400 *battering cannon* playing upon the town.

According to Froissart, the Flemings had, in 1382, a tremendous piece of ordnance:—"it was (says he) fifty feet long, and threw wonderfully large stones. Its report was heard five leagues by day and ten by night."

In 1418 iron balls were used for *cannon* in England, since in Rymer there is an order from king Henry V. to the clerk of the ordnance, and John Bonet, a mason in Kent, to cut 7000 stone shot in the stone quarries in that county; but there is reason to believe that the French made use of iron shot prior to this period, since at the attack of Cherbourg, towards the close of the year 1418, the besiegers, commanded by the Duke of Gloucester, were much annoyed by *red-hot balls* fired from the town.

The valiant Earl of Salisbury fell by a *cannon* shot at the siege of Orleans in the year 1428; and was, according to Camden, the first English gentleman "ever slain thereby." The Earl was reconnoitring the town from a high tower on the bridge, when the son of the master gunner of Orleans pointed a cannon at the window and slew him; the ball carried away one of his eyes and his cheek,

and mortally wounded Sir Thomas Gargrave.

The Turks were repulsed at the siege of Belgrade in the year 1437, by the use of artillery, then used for the first time, it is said, in that part of Europe. But the Turks themselves, in the early part of the 15th century, attempted the use of artillery, as we find Mahomet II. employed it in the siege of Constantinople. Gibbon remarks, "Among the implements of destruction, Mahomet II. studied with peculiar care the recent and tremendous discovery of the Latins; and his artillery surpassed whatever had yet appeared in the world. A founder of cannon, a Dane or Hungarian, who had been almost starved in the Greek service, deserted to the Moslems, and was liberally entertained by the Turkish Sultan. Mahomet was satisfied with his answer to his first question, which he eagerly pressed on the artist. 'Am I able to cast a cannon capable of throwing a ball or stone of sufficient size to batter the walls of Constantinople?' 'I am not ignorant of their strength; but, were they more solid than those of Babylon, I could oppose an engine of superior power: the position and management of that engine must be left to your engineers.' On this full assurance, a foundry was established at Adrianople: the metal was prepared; and, at the end of three months, Urban produced a piece of brass ordnance of stupendous and almost incredible magnitude; a measure of twelve palms is assigned to the bore; and the stone bullet weighed above six hundred pounds. A vacant place before the new palace was chosen for the first experiment; but to prevent the sudden and mischievous effects of astonishment and fear, a proclamation was issued that the cannon would be discharged the ensuing day. The explosion was felt or heard in the circuit of an hundred furlongs; the ball, by the force of the gunpowder, was driven above a mile; and, on the spot where it fell, it buried itself a fathom deep in the ground. For the conveyance of this destructive engine, a frame or carriage of thirty waggons was linked together, and drawn along by a team of sixty oxen: two hundred men on both sides were stationed to poise and support the rolling weight; two hundred and fifty workmen marched before to smooth the way and repair the bridges; and nearly two months were employed in a laborious journey of one hundred and fifty miles. A lively philosopher derides

on this occasion the credulity of the Greeks, and observes with much reason that we should always distrust the exaggerations of a vanquished people. He calculates that a ball, even of two hundred pounds, would require a charge of one hundred and fifty pounds of powder; and that the stroke would be feeble and impotent, since not a fifteenth part of the mass could be inflamed at the same moment. "Yet I dare not (says Gibbon) reject the positive and unanimous evidence of contemporary writers; nor can it seem improbable that the first artists, in their rude and ambitious efforts, should have transgressed the standard of moderation. A Turkish cannon, more enormous than that of Mahomet still guards the entrance of the Dardanelles: and if the use be convenient, it has been found on a late trial that the effect was far from contemptible. A stone bullet, of *eleven hundred* pounds weight was once discharged with three hundred and thirty pounds of powder: at the distance of six hundred yards, it shivered into three rocky fragments, traversed the streight, and, leaving the waters in a foam, again rose and bounded against the opposite hill." Mahomet's enormous cannon, however, could only be discharged seven times in one day; it was not long before it burst, killing several of the workmen by the unfortunate explosion.

Two pieces of artillery used at Dieppe, 1442, as represented by Pere Montfaucon, seem ill calculated for service; nor does there appear throughout the century any contrivance to elevate or depress the pieces; a deficiency which must have rendered them comparatively useless. But it was certainly not for want of bulk that the artillery of the age failed in becoming respectable; as in addition to what has been already mentioned, we are told by Monstretel of a piece of ordnance which sent a ball, weighing 500lbs. from the Bastille at Paris to Charenton, in 1477.

Edward IV. had *field-pieces*, when he defeated Sir Robert Wells at Stamford in 1469. "The king (says Leland) sparkled the enemy with his ordnance, slew many of the commons, and thereby gained the victory."

At the battle of Flodden in 1513, the Scots were much superior in ordnance: Borthwic, an engineer of eminence, had the direction of it. Louis of France had sent him to James with a large present of brass cannon, on each side of which

was inscribed "*Machina sum Scoto Borthwic fabricata Roberto.*" This valuable train of artillery fell into the hands of the Earl of Surrey after the battle of Flodden, together with seven "*faire culverines,*" called the Seven Sisters.

In process of time, a kind of light cannon, called a culverin, sometimes carried by two men, and sometimes by only one, was introduced. These were used by the Switzers at the battle of Maorat, where 10,000 of them were so armed. This weapon seems to have been the immediate parent of the musket, and was placed on a rest to be discharged.

Dr. Watson says, that "Artillery was used from the time of Edward III. and purchased from abroad by all our successive kings; it seems, however, extremely strange, that none of our workmen attempted to cast cannon till the reign of Henry VIII. when, in 1521, according to Stowe (Camden says 1535) great brass ordnance, as *cannon* and *culverines*, were first cast in England by one John Owen, they formerly having been made in other countries. Whether this man did not succeed, or died before 1543, is not mentioned; but in that year Stowe remarks, the king employed two aliens as his *gun-founders*, viz. Peter Bawd, a Frenchman, and a maker of great ordnance; and Peter Van Collen, a gunsmith. It has been remarked of Queen Elizabeth, that she left more brass ordnance at her death than she found of iron at her accession to the throne. This must not be understood as if gun-metal was in her time chiefly made of brass; for the term brass was sometimes used to denote copper; and sometimes a composition of iron, copper, and calamine, was called brass; and we at this day commonly speak of *brass cannon*, though *brass* does not enter into the composition used for the casting of cannon. Aldrovandus informs us, that one hundred pounds weight of copper, with twelve of tin, made gun metal; that if, instead of twelve, twenty pounds weight of tin were used, it made bell metal. The workmen were accustomed to call this composition metal or bronze, according as a greater or a less proportion of tin had been employed: some individuals, he says, for the sake of cheapness, used brass or lead in the room of tin, and thus formed a kind of bronze for various works. The metal of which the ancients cast their statues was by Pliny said to be composed in the following manner:—They first melted a quantity of copper;

into this melted copper they put a third of its weight of old copper, which had been long in use; and to every hundred pounds weight they added twelve pounds and a half of a mixture of equal parts of lead and tin.

"Brass cannon are much dearer than those made of iron, and have this disadvantage, that at the time of explosion the report is so much louder as to occasion a tingling in the ears of persons on ship-board, which for a time takes away the faculty of hearing. Cannon might be cast of copper alone, but the mixture of tin and copper is harder and denser, and less liable to rust than pure copper, and upon these accounts it is preferable to copper. Tin melts with a small degree of heat; copper requires a very great heat to melt it: copper and tin mixed melts much easier than pure copper; and upon this account also a mixture of copper and tin is preferred to pure copper, not only for the casting of cannon, but for statues, &c. for pure copper, in running through the various parts of the moulds, would lose so much of its heat as to set before it ought to do."

The musket or hand-gun, as we have already observed, was evidently the immediate forerunner of the fowling-piece; and Edward IV. may be justly considered as the first who introduced hand-guns into England. This monarch landed at Ravenspurgh in Yorkshire in the year 1471, bringing with him, among other forces, three hundred Flemings, armed with "*Hange Gunnes.*" This is fifty years before the date generally assigned for their introduction; Mr. Anderson, the Rev. Mr. Lamb, and divers other writers placing that event in 1521 at the siege of Berwick, where they were called *hand-cannon*. The hand-gun used in England was a short piece, as appears from the statute of thirty-third of Henry VIII. whereby it was enacted, that "no hand-gun should be used of less dimensions than one yard in length, gun and stock included." The haque-but or hag-but was a still shorter piece; by the above statute, it might not be under three-quarters of a yard long, gun and stock included as before. This piece is supposed by some writers to have been called a haque-but, from its butt end being hooked or bent, like those now used; the stock of the hand-gun being nearly straight. There were also guns, called demi-haques, either from being less in size, or from having the butts less curved, and likewise

a sort of pistol named a *dag*. The harquebuss is by Fauchet derived from the Italian *arca bouza*, or the bow with the hole; and is the most ancient arm mounted on a stock. It does not appear that harquebusses were originally of any particular length or bore. All the kinds of fire-arms were first fired with a match, and afterwards some of them with the wheel lock. The former, by a spring, let down a burning match upon the priming in the pan; and the latter was a contrivance for exciting sparks of fire by the friction of a notched wheel of steel which grated against a flint; these wheels were wound up with an instrument called a spanner. The balls were carried in a bag or purse, the powder in a horn or flask, and the priming, which was of a finer sort of mealed powder, in a touch-box: this powder was termed serpentine, from the part of the matchlock which contained the match being denominated the serpent. The petronel or poitronel was, according to Fauchet, the medium between the harquebuss and the pistol. Nicot, in his dictionary, defines it as a species of harquebuss shorter than the musket, but of a greater calibre, which, on account of its weight, was carried on a large bauldrick worn across the shoulders like a sash, and when fired was rested on the breast or the shoulder of the person who used it.

The musket was a heavier kind of harquebuss, carrying also a larger ball, and probably introduced owing to the trivial execution done by pieces of small calibre. Sir Thomas Kellie, in his *Art Militaire*, published in the year 1621, says the barrel of a musket should be four feet in length, the bore capable of receiving bullets twelve of which weigh one pound. Muskets were so heavy as to require a fork, called a rest, to support them when presented in order to fire. These rests were of different lengths, according to the heights of the men who were to use them; they were shod with sharp iron ferrules, for sticking them in the ground; and, even on the march, when the musket was shouldered, carried in the right hand, or hung upon it by means of a string or loop tied under the head. Sometimes these rests were armed with a contrivance called a *swine's feather*, which was a sort of sword blade or tuck that issued from the staff of the rest at the head; this being placed before the musketeers when loading, served, like the stakes placed before the archers, to keep off the cavalry: these

preceded the use of the bayonet, the invention of which, originated in the soldiers sticking the handles of their daggers into the muzzles of their pieces when they had discharged all their ammunition. Father Daniel says the regular introduction of bayonets took place in France about the year 1671, and that the first corps armed with them was the first regiment of fusileers raised that year. The term bayonet was derived from these weapons being first made at Bayonne; they were called by the French bayonets *à manche*, or bayonets with handles. There are many of them in the small armoury of the Tower of London. The modern implements were termed bayonets *à douille*, or bayonets with sockets.

If Brantome is to be credited, it was the Duke d'Alva who first brought muskets into use in the armies, when, during the reign of Philip II. he went to take upon him the government of the Low Countries, in the year 1567; but that only means he brought them more into fashion than they were prior to that period, and that, until then, they were rarely used, at least in the field. The Spaniards in the time of Philip II. caused their muskets to be made of a very great calibre, and such as a strong and vigorous foot-soldier might carry; but they were so heavy that they could not be presented without the aid of staves shod with iron, with a fork at the top, as a prop to sustain the end of the musket. Muskets were fired with matchlocks; and musketeers, of the reigns of James and Charles I. carried their powder in little wooden, tin, or leather cylindrical boxes, each containing one charge. Twelve of these were fixed to a belt across the shoulders, and were called *bandeleers*.—This contrivance seems to have been borrowed from the Dutch or Walloons.—To prevent the matches from being seen in the night, small tubes of tin or copper, pierced full of holes, were invented, it is said, by a Prince of Orange, probably Prince Maurice.

The *caliver* was a lighter kind of musket with a match lock, and was made to be fired without a rest. Pecke, in his *Desiderata Curiosa*, gives the price of a caliver and its accoutrements, as paid in Queen Elizabeth's time by the Sheriff of Lancashire in 1584, for the use of recruits raised for the Irish service—which was, the caliver, furnished with flaske, touche-box, laces and moulds, thirteen shillings and sixpence.

Charles I. in 1629 adopted measures for bringing about an uniformity in the size and fashion of the armour and arms, a circumstance which had hitherto been neglected.

In the reign of James II. the first step was taken towards the abolition of the use of pikes in England by the practice of sticking the dagger into the muzzle of the musket in order to protect the musketeers from being charged by the cavalry immediately after they had fired. This manoeuvre, which was adopted by the French in 1671, and taken from them into our service some years after, was confined to the grenadiers only, and was the origin of the bayonet. In a book of Exercise for Horse, Dragoons, and Foot, printed by authority in the year 1728, the bayonet of the present fashion is described.

The following anecdote respecting that weapon is mentioned to have happened in one of the campaigns of king William III. in Flanders. In an engagement, where there were three French regiments, whose bayonets were made to fix after the present method (a contrivance then unknown in the British Army) one of them advanced against the 25th regiment with fixed bayonets: Lieutenant Colonel Maxwell, who commanded it, ordered his men to screw their bayonets into the muzzles to receive them, thinking they meant to decide the affair point to point; but, to his great surprise, when they came within a proper distance, the French threw in a heavy fire, which, for a moment, staggered his people, who by no means expected such a greeting, not conceiving it possible they could fire with fixed bayonets: the British regiment, however, recovered itself, charged, and drove the enemy out of the line. Notwithstanding this instance of the utility of the *socket* bayonet, it seems that the old bayonets underwent a mutation or two before they arrived at their present form: one of them was a couple of rings, fixed into their handle, for the purpose of receiving the muzzle of the piece, like the socket now in use, by which means the soldier was enabled both to fire and load his musket without unfixing his bayonet.

Thus the bayonet superseded the pike, the match-lock was exchanged for the *snap-lance*, the original name of the present lock; or, at least, the application of the flint-lock to the musket (after the invention of the bayonet) gave it the name of the *snap-lance*, as applied to the whole.

This improvement took place in the reign of William III. but the change does not appear to have been sudden; it was accomplished by degrees, and therefore an exact period for it cannot be positively assigned.

Hence we perceive the origin of that essential article to the sportsman—the *fowling-piece*; and as the changes in the form and make of the musket have been progressive, the fowling-piece has experienced still greater improvements, and has perhaps nearly, if not altogether, reached the acmé of perfection.

There are few persons, sportsmen or others, who have not heard of the superior excellence of *Spanish barrels*; but whether they ever deserved the character they acquired, and the preference given them, is somewhat doubtful. Spanish guns always were, and still continue to be, very awkward looking instruments; and from the circumstance of the same person manufacturing the whole gun, barrel, lock, stock, &c. it is not likely that the same perfection can be attained, as the English fowling-pieces display, the manufacture of which is judiciously subdivided among several persons. The Spanish iron, especially that of Biscay, was supposed to be the best in Europe; and the Spaniards formerly possessed the reputation of forging and boring their barrels with more care than other nations.

The barrels made at Madrid were said to be composed of the old shoes of mules and horses collected for the purpose, and we are gravely told, that “some idea may be formed of the very great purity to which the iron was brought in the course of the operation, when it is known, that, to make a barrel which, rough from the forge, weighs only six or seven pounds, they employ a mass of mule shoe iron weighing from forty to forty-five pounds, so that, from thirty-four to thirty-eight pounds are lost in the heatings and hammerings it undergoes before it is forged into a barrel.” However, of the Spanish barrels, those only that were made in Madrid were accounted truly valuable; and in consequence of this predilection, numbers were manufactured in various parts of Spain and also in other countries, and the marks of the Madrid gunsmiths surreptitiously put upon them: nor have I the least doubt, that most of the barrels, of late years sold in this country as the workmanship of Spain, were manufactured in Birmingham. There are, however, many persons still to be found who en-

ertain a very high opinion of the Spanish barrels ; and those made by men who have been dead many years are held in the greatest estimation. A writer, speaking of Spanish barrels, says the true ones are made of iron worn and beaten for a long time, as heads of nails in the shoes of mules, which travel with a slow and incessant pace along the hard roads ; but that a very small proportion of the great quantity of Spanish barrels sold in all parts of Europe can have this advantage. He adds, that the Corsican iron possesses a toughness nearly equal to that of the prepared iron in Spain ; and the metal of the Corsican barrels, well made, is little inferior to the generality of Spanish ones.

At all events, whatever may be the material from which the barrel is manufactured, whether from Spanish mule shoe iron or otherwise, the first object in the choice of a fowling-piece ought to be *safety* ; and, whatever might be the weight of the barrel, the metal should be so disposed as to prevent even the remote probability of bursting. In double guns, the stoutness of the barrel is indispensable, if the shooter has any regard to his own safety ; for, in light double-barrel pieces, the firing of one will frequently loosen the charge of the other barrel ; and should the shot be so shaken as to leave the powder a few inches, and the second barrel fired with the muzzle pointing downwards, it will most likely burst. The lower or breech end of all barrels should be very strong ; it is of little consequence how thin the muzzle end may be : it is the instantaneous explosion which ensues on the ignition of the powder which puts the barrel to the test ; and the moment the charge commences its progress up the barrel, as it were, all danger of bursting has passed away.

It has been supposed that barrels forged from steel are lighter and safer, and shoot stronger, than any others ; but it has been satisfactorily ascertained that, where steel was used, the barrel neither welded nor bored so perfectly, as when iron alone was employed. There are various kinds of barrels, which pass under different denominations, such as twisted-stub barrels, wire-twisted barrels, Damascus barrels, and common barrels. Twisted stubs are old horse-shoe nails twisted together ; there are also iron-twisted, inferior to the former. Wire-twisted are stubs drawn into wire, and then twisted and formed into the barrel. Damascus barrels are iron and steel curled together,

which gives the barrel a beautiful appearance. And " I have reason to believe (adds a writer on the subject) not only from experience, but also from the opinion of an excellent gunsmith, that wire-twisted stub barrels are to be preferred to all other." Damascus barrels are inferior even to common twisted stubs ; though, as they bear a foreign name, and as the peculiar curling of the iron and steel gives them a pleasing, and indeed a beautiful, appearance, they have of late been in request : the English gun-makers found it inconvenient to import a sufficient number ; in fact, it was impossible, and they therefore did not hesitate to manufacture Damascus barrels, and not more than one real barrel of this sort out of a hundred, perhaps a thousand, is to be met with. It is well known that the temper of the Damascus scimitars is superior to any other ; and there is every reason to believe that the originals of what are called Damascus barrels were absolutely manufactured at the place, the name of which they bear : a real Damascus barrel occasionally reaches this country, generally through Russia ; and the few which have fallen under the observation of the writer, are certainly much superior to those manufactured in England, and distinguished by the same appellation.

In continuation of this subject, it may be observed that no fowling-piece should be put into the hands of a sportsman which has not undergone the most incontestible scrutiny or proof. Many barrels have burst, after having gone through the Company's or Tower proving house, and received the customary mark as a guarantee of their safety ; and in all probability the only mode of ascertaining the indisputable safety of a barrel is by water-proof.

The old mode of proving barrels, as used in the king's proving house, was to load the barrel with powder equal to the weight of the ball which fitted the bore ; but this has been altered by an act of parliament obtained by the Birmingham Proof Company ; and also at the Company of Gun-makers' Proof-house in London ; by which the proof is reduced to nearly one third less of powder. To say nothing of any indefinite satisfaction thus to be derived, all fowling-pieces should be submitted to the test of water-proof ; that is, water should be forced into the barrel with the proper apparatus. This process will discover the slightest defect, by the

oozing through of the water which is forced down the barrel. Some idea may be formed of the nature of this proof from the following :—That water is the most fluid penetrating body next to fire, and the most difficult to confine, has been satisfactorily proved by a variety of experiments. A vessel through which water cannot pass may be said to be capable of retaining any thing. It may be objected, indeed, that syrups, oils, and honey, leak from some vessels through which water will not pass; but this is far from being the result of the greater tenuity or fineness of their parts; it is owing to the resin with which the wood of such vessels abounds, which oils and syrups have a power of dissolving; so, that these fluids, instead of finding their way, may be more properly said to *eat* their way through the vessels in question. However, water will at last find its way even through these; for it is known to escape through vessels of every substance, glass only excepted. Other bodies may be found to make their way out more readily indeed; as air, when it finds a vent, will escape at once; and quicksilver, because of its weight, will quickly penetrate through whatever chinky vessel confines it: but water, though it operates more slowly, yet always finds a more certain issue. As, for instance, it is well known that air will not pass through leather, which water will readily penetrate. Air also may be retained in a bladder, which water will readily ooze through. And those who go to the greatest degree of precision pretend to say that it will pass through pores ten times smaller than air can do.—Be this as it may, we are very certain, that its parts are so small that they have been actually driven through the pores of gold. This has been proved by the famous Florentine experiment, in which a quantity of water was shut in a hollow ball of gold, and then pressed by a huge force with screws, during which the fluid was seen to ooze through the pores of the metal, and to stand like a dew upon its surface.

By the old method of proving, a barrel was obliged to stand three days after proof before it was examined as to its safety; but proof with water is infinitely more efficacious, and consequently more satisfactory.

Amongst others who have expressed their opinions on the subject under consideration is one Ezekiel Baker, whose "Remarks on Rifle Guns" deserve particu-

lar notice, not on account of any new or extraordinary light they throw on the matter, but from a quaintness or affectation of peculiarity which pervade them throughout. On the subject of proving he observes, "I proved a pair of double barrels on the percussion (see the article PERCUSSION LOCK) principle; and although they had been proved at the Company of Gun-makers' Proof house, both in their single and double state, had stood the proof and were marked as sound barrels—had been afterwards proved by me in the usual manner, both regular and water-proof, yet, when I proved them by the percussion principle, both barrels bulged, were much shivered, and were consequently spoiled."

Another pair (continues Baker) had undergone the strictest proof at my proof-house, and such as would be generally considered sufficient to justify the strongest recommendation for safety; yet, on trying them by the detonating principle, the result was the same—both barrels were seriously injured.

February 22, 1823.—I have this day tried another pair of barrels (says Baker) which had undergone the regular proof, and which I had absolutely fitted to the stock for sale, by specific order—both barrels failed.

These barrels (continues Baker) had stood every proof which is usually considered safe; and yet, from the suddenness with which the powder is ignited by the detonating principle, all the barrels failed. Consequently, the result of these experiments convinces me, beyond any theoretical views entertained by others, that the proof of double-barrels with percussion locks can only be satisfactorily proved by the detonating principle. Every other proof, however it may appear to pass the ordeal of safety, is not a sufficient guarantee."

These observations, if they amount to any thing, merely go to prove the extraordinary efficacy of the percussion principle—they prove indeed (in the first place perhaps the ignorance of Baker himself, in making use of a much larger quantity of gun-powder than was any way requisite) that a much smaller quantity of gunpowder than usual is amply sufficient for the charge of a fowling-piece fitted up on the percussion principle; and they prove also, that when the customary quantity of gunpowder used in proving is ignited by means of the percussion plan, that it thus acquires force sufficient

to injure, if not to burst, barrels, which have endured the severity of water-proof; but they by no means shew that the proof by water is not sufficient to answer, and that fully too, all the purposes of safety in the use of the fowling-piece. There is nothing equal to the proof by water, and no other mode which can give such complete satisfaction. The fact is, the rapidity of ignition by percussion increases the elastic force of the gun-powder to such a degree that no gun barrels are able to resist it.—Again we refer the reader to the article **PERCUSSION LOCK**.

Among the many improvements that have been made in the fowling-piece, we must notice the *length of the barrel*. At a period not very remote, it was considered that a great length of barrel was indispensable, if the shot was to be driven any considerable distance; and, pursuing this train of ideas it was taken for granted that the longer the barrel of the gun, the further the shot would be thrown; and hence we see in many ancient halls and farm houses gun barrels of such a length that it is not without great difficulty they can be presented from the shoulder; some, in fact, require a rest, after the manner of the old harquebusses, when they are to be pointed at any object. The subject is scrupulously investigated in Johnson's *Shooter's Companion*, the author of which remarks—"The length of the barrel is a matter which is involved in doubt, though abundant evidence has been obtained to prove that the antiquated notion of long barrels carrying the farthest is completely erroneous. After a great number of experiments I have found, that a barrel twenty-eight inches long, of the common fowling-piece calibre (five eighths of an inch diameter) shoots fully as strong, if not stronger, than any other greater length; though the difference between twenty-six and twenty-eight or even thirty inches, is not very great; but for any increase of length beyond thirty inches, the difference, or the decrease of force, would very much surprise any person who had never witnessed the experiment. I have shortened five different barrels (says he) gradually, inch by inch, for instance, and the result has invariably been the same; and, in these experiments, great pains were taken in regulating the charge, so that, in this respect, no perceptible variation could take place. Nevertheless, though a barrel twenty-six inches long (I never tried one shorter) may impel the charge with more force

than a greater length, yet I prefer a barrel somewhat longer, as it is pleasanter to load, and the aim may be much better taken with it; yet, for my own choice, I would never exceed thirty inches.

At first sight it may be asked, how it happens that a long eighteen-pounder carries farther than a shorter cannon?—To which it may be answered, that it is possible an increase of length may be added with advantage, to the longest eighteen pounder in the service; since, on comparison, taking into consideration the difference of the calibre, a fowling-piece barrel twenty-six inches in length, is proportionably longer than any cannon whatever.

If the bore, or calibre, of the fowling-piece be made extremely wide, it will require a greater charge, and will, of course, admit of a greater length of barrel."

According to Mr. Robins, gunpowder fired in any space acts nearly in the same manner as a quantity of air would do, which was condensed a thousand times more than the common air we breathe; and which, in that condensed state, filled the same space that was taken up by the unfired powder. Hence it follows, that the pressure of the powder on the shot becomes weaker and weaker, as the shot is impelled before it; for, as the shot is impelled forward, the inflamed powder occupies more space, and consequently its elasticity is lessened. In short, it is quite clear, if we reason upon the subject, that, in order to attain the greatest possible force, the shot should leave the muzzle of the gun the moment that the elastic fluid, generated by the explosion of the powder, has acquired its greatest elastic force, or power of impulsion; if, after this precise instant, the shot has still to move farther up the barrel, it will have to contend against the lateral action, or friction, of the inner surface, as well as be directly opposed to the atmospheric air in front; and therefore a length of barrel beyond that already stated cannot accelerate, but must necessarily retard, the flight or force of the shot. But, to ascertain the precise point of perfection in this respect will be found a very difficult matter, if it be not altogether impossible; as a variety of causes will be found to operate against what—in the absence of a better term—may be called mathematical demonstration; amongst the most prominent of which may be mentioned the quality of the powder, its great sus-

ceptibility of variation from the influence of the weather, and the state of the atmosphere at the time of making the experiment. Sufficient, however, has been satisfactorily shewn to prove that long barrels are detrimental to the force of the shot; and that they consequently produce the very reverse of what they were intended to effect.

Boring of Barrels.—I shall not attempt to describe the process of boring gun barrels, as this work is intended not for the mechanic, but the sportsman; besides, in every thing of this sort, five minutes' inspection would do more than a volume of words; yet, as the well shooting of a fowling-piece materially depends upon the boring of the barrel, we shall state what kind of bore or cylinder we have found to throw the shot with the greatest force, as well as with the greatest regularity. However, thus much may be stated at the outset, viz. that the boring of barrels is very imperfectly understood, and it is no uncommon occurrence for a gun upon which every possible care and pains have been bestowed in the boring not to shoot so well as an ordinary or common barrel. Those makers, however, who are careful of their reputation, will seldom turn out a gun with the shooting of which they have not been previously satisfied; though it often happens that this is not accomplished without considerable trouble. The difficulty arises from the want of a positive rule for boring, which, however, is perhaps unattainable, as the method by which one indifferent shooting gun is rendered unobjectionable or excellent will very often fail when applied to another:—hence, the gun maker, in order to attain his object, is under the necessity of first trying one method and then another till he ultimately succeeds. It is true, gun makers, when speaking on the subject of boring barrels, assume an air of mysterious importance, and, by significant shakes of the head and broken sentences, give you to understand that the true and correct method of boring gun barrels, is a secret which remains with them and them only.

The bore which has given the writer the most satisfaction, and that which he now uses, is, for a very short distance from the breech, a trifle wider than the remainder of the barrel; this increase of width should be sufficient merely to be perceived when forcing down the wadding, which will of course slide easier in the widened part. Many prefer a perfect cylinder.

The *Breeching* of the fowling-piece has been, and very justly too, considered of essential importance; this must always be the case with the flint-lock; but is, we are inclined to think, of less consequence where the percussion principle is used, particularly when the gun is fired by a copper cap, placed upon a pin or touch hole, screwed into the upper part of the breech, or even when this is screwed into a collar laterally, which forms, as it were, part of the breech; but where percussion plans are used, which force the flame produced by the explosion of the priming into the ordinary touch-hole, as used in the flint lock, the proper or best form of the breech must be as essential in the one as the other. As to the best form of the breech many opinions will be found to exist: there are few gunsmiths, who will not tell you they have made some improvements in this part of the fowling-piece; and, of course, every one of these breech-improvers will recommend his own plan. It would perhaps be difficult to ascertain which is the best form of the breech, as a number of trifling variations have been effected without any perceptible difference.

The *Elevated Breech* is an invention of a recent date; and consists of a sort of broad rib, which runs along the top of the barrel, thicker at the breech end and tapering to the muzzle: by this contrivance the muzzle acquires an elevation, and the shot is consequently thrown higher; for those, therefore, who are apt to shoot under or below the object, the elevated breech is to be recommended.

For the *Touch Hole* platina is to be preferred—it resists the action of fire better than gold.

Of the *Lock* little need be said. There are various trifling alterations in this essential article, according to the notions of different makers, which are perhaps equally entitled to consideration; yet, let the principle be what it may, the workmanship should always be of undoubted goodness or excellence; and a perfectly good lock will not only give the most unqualified satisfaction, but will be found at the end of twenty years (with proper care) as good as the first day it was used; while an indifferent lock will be constantly out of repair, and very unsatisfactory to the owner; and, by the end of the first season, it will have cost as much, in all probability, as the price of a lock of superior workmanship.

The *Stock* of the fowling-piece next

presents itself, and is perhaps an object which demands more consideration than is generally bestowed upon it. Supposing the piece to be of superior workmanship, and to shoot in the best possible manner, it will be found extremely unsatisfactory, if it be not stocked to suit the person who uses it : the fowling-piece, therefore, should be stocked the exact bend and length to suit the owner ; at the same time, it should be properly *laid off*, a circumstance to which many gunsmiths pay not the least attention : many indeed will be found who are altogether ignorant of the subject. The Birmingham gun-makers never pay the slightest attention to this particular ; and the immense number of fowling pieces which are annually vomited forth from this great and general manufactory, and spread all over the kingdom by means of spurious auctioneers, and professed swindlers, are never to be depended on : they are got up in such a manner as to appear well to the eye of a superficial observer, and are sold uncommonly cheap ; yet they should be received with caution ; it is true, a tolerable article may be sometimes met with amongst the many thousands which are yearly sent forth ; but they are always to be suspected, and are utterly unworthy of the attention of the sportsman. What is meant by the term *laid off* is that peculiar form or method of mounting the stock, so as to bring the upper surface of the barrel in a direct line with the eye of the shooter. We would strongly advise sportsmen never to purchase a fowling-piece which they have not tried, and with the shooting of which they are not perfectly satisfied. However, in the trial of the fowling-piece, and indeed in its general use, particular attention should be paid, in the first instance, to ascertain the quantity of powder and shot with which it shoots the best, and afterwards in making a point of using these well ascertained proportions. On trial, it will be found that all guns shoot strongest the first discharge ; or, in other words, when they are perfectly clean ; and that the force decreases in exact proportion to the piece becoming foul ; hence the necessity of occasionally wiping out the barrel during a long day's shooting. There is also (as already observed) a certain proportion of powder and shot which will exactly suit every fowling-piece : if a piece be over-loaded with powder, the shot will scatter very much, and but few pellets will strike the object ; whereas, if

an insufficient quantity of powder be used, the shot will not be driven with sufficient force. Yet, it is more than probable that a trifling variation will be found in all guns ; or, to speak more plainly, it will be a difficult matter to find two pieces, though of the same length and calibre, which require precisely the same charge. A very good method of ascertaining the load for the fowling-piece is by firing at sheets of paper at given distances, and the progressive result will guide the shooter in the increase or decrease of either the powder or shot, or both.

On investigation it will probably be found that the general error in loading the fowling-piece, is in using too much powder, which not only very much scatters the shot, but renders the recoil almost insupportable :—it is quite a mistaken notion to suppose that a distant object will be better reached by a large load of powder, or that the force of the shot is thus increased ; as it will be found, on experiment, that those pellets which strike the mark are not so strongly driven, as when a reduced, but a correct, proportion of powder is used, to say nothing of the scattering of the shot, by which a small object will generally be missed.

In the choice of a fowling-piece, the sportsman should, in the first place, consider the weight he can conveniently carry, strength being a most essential point to shooting as well as to the safety of barrels. After the weight of the barrel has been fixed upon, the bore and the length should be regulated accordingly ; and perhaps a narrow, is preferable to a wide, bore.—If the bore be wide, and the weight limited, the barrel must be weakened in consequence. The bore or calibre which takes seventeen balls to the pound is perhaps the best calculated for general use ; but, supposing the weight of the barrels be confined (we are speaking of double guns) to four pounds or four pounds and a half, (which is a good and proper weight for barrels,) the bore of which takes seventeen balls to the pound, if barrels of the same weight are made three fourths of an inch in the bore, they are then, not only much reduced in strength and rendered unsafe, but do not shoot so well for want of a due proportion of metal according to the size of the bore ; besides, a wide bored double gun, unless made excessively heavy, is very unpleasant to use, as it must be loaded according to its bore, and, for want of sufficient metal, it recoils violently ; when, on the

contrary, barrels of a less bore (seventeen or eighteen balls to the pound, for instance) the same weight as the wide bored ones, will shoot very well and be perfectly safe. *Strength* is essential to barrels; yet, a fowling-piece unnecessarily heavy is by no means to be recommended; that is, heavier than the sportsman can conveniently manage; since, if he becomes overpowered with weight and consequent fatigue, the pleasure otherwise arising from the charming diversion of shooting is supplanted by vexation and disappointment. If the weight be limited, the shorter the gun is, of course, the stronger it will be; and there is no weight, at least that a sportsman would choose to carry, that can improve the shooting of barrels above two feet four, or two feet six inches long. There are many sportsmen, particularly of the old school, who cannot prevail upon themselves to think that a short gun (two feet two, or two feet four for instance) will shoot as strong as one of a greater length (two feet eight, or two feet ten); yet such, on repeated trials, has been found to be the case.

For the safety and also for the satisfaction of sportsmen, it may be necessary here to remark, that where the *copper cap* is employed for the purpose of priming, the pin or touch hole should be examined once or twice during the season. I was not aware (observes the author of the *Shooter's Companion*) of the imperious necessity for this examination till some months ago: a brother sportsman informed me his pin or touch hole peg had blown out, and struck him on the forehead. This circumstance appeared somewhat alarming; and I immediately unscrewed the

touch-hole of the fowling-piece which I had used, without alteration, for two successive seasons. To my surprise, I found the bottom or screw part of them much worn by the action of the fire of the percussion priming, and in time, there is little doubt, they would have blown out. A supply of these touch-holes, therefore, should accompany every percussion gun, and the old ones should be removed as often as occasion may require, which will, of course, depend on the quantity of shots fired.

Let it be impressed on the mind of the sportsman, that cleanliness in the fowling-piece is an object of the first importance. The bursting of barrels arises, in nineteen instances out of twenty, from the piece having been kept in a filthy state. Scarcely any gun, however inferior the materials may be of which it is composed, if properly loaded and kept clean, will burst; but, whenever the inner surface of the barrel is suffered to become corroded, so as to form specks of rust, the gun is never afterwards to be depended on. Superficial rust amounts to nothing; but when a speck of rust is allowed to eat away the inner surface, moisture will always lodge in that particular spot when the gun is cleaned: thus corrosion continues to weaken the already injured part, till bursting becomes the inevitable consequence. Shot getting loose, as before noticed, may produce the same effect; and the same remark will apply should the muzzle become stopped with dirt or snow; so that, on every view of the case, too much attention cannot be bestowed on an instrument so indispensable to the delightful recreation of shooting.

FOX. This animal is a native of every quarter of the globe, and is of so wild and savage a nature that it is almost impossible fully to tame him. He is esteemed the most sagacious and most crafty of all beasts of prey. The former quality he shows in his mode of providing himself an asylum, where he retires from pressing dangers, dwells, and brings up his young; and his craftiness is evident from his schemes to catch geese, hens, pheasants, partridges, and all kinds of small birds. The fox, when it is possible, fixes his abode on the border of a wood, where he can listen to the crowing of the neighbouring village cocks, and the cries of the poultry. He scents them at a distance; he chooses his time with judgment; he conceals his road as well as his design; he slips forward with caution, sometimes even trailing his body; and seldom makes a fruitless expedition. If he can leap the wall, or creep in underneath, he ravages the court yard, puts more to death than he can eat, and retires slowly with his prey, which he either hides in the immediate vicinity, or carries off to his kennel.



Approved by The Landseer from a drawing by his brother Edwin

Forbes.

In a very short time, he returns for more, which he disposes of in the same manner, though perhaps in a different place. In this way he proceeds till the progress of the sun, or some movements perceived in the house, warn him that it is time to suspend his operations and to retire to his den. He hunts the young hares; seizes old ones on their seats; digs out the rabbit from its hole; discovers the nests of pheasants, &c. and will seize the sitting bird;—the Fox will draw up to and set a partridge or a pheasant as steadily as a well trained pointer; though he will not keep his point so long, as the moment he conceives he has ascertained the situation of the bird by his nose, he endeavours to seize it:—in fact, he will destroy a very considerable quantity of winged game, where rabbits are not plentiful. He is exceedingly voracious, and when other food fails him, he will seize and devour rats, mice, serpents, lizards and toads; of these he destroys great numbers, as well as great quantities of the chafer beetle. When urged by hunger, he will eat roots, insects and vegetables; and the foxes near the coast will devour crabs, shrimps, shell fish, as well as dead fish, and other marine substances which the tide occasionally throws upon the shore. In France and Italy they do incredible mischief by feeding upon the grapes, of which they are said to be excessively fond.

Buffon informs us that the fox sometimes attacks bee-hives, and the nests of wasps, for the sake of what he can find to eat, and that he frequently meets with so rough a reception as to force him to retire that he may roll on the ground and crush those that are stinging him; but having thus rid himself of his troublesome companions, he instantly returns to the charge, and obliges them at length to forsake their combs, and leave them to him as the reward of his victory. When pressed by necessity, he will devour carrion. Buffon one evening suspended on a tree, at the height of nine feet, some meat, bread and bones. The foxes had been at severe exercise during the night; for next morning the earth all round was beaten, by their jumping and running, as smooth as a barn floor.

The first year, the fox is called *a cub*; the second, *a fox*; the third, *an old fox*. His tail is called the *brush*, and his excrement the *billiting*. The female has from three to six at a litter: the cubs are produced in April and May.

As the fox makes war upon all animals, so all others seem to make war upon him. The dog hunts him with peculiar acrimony; the wolf is still a greater and more necessitous enemy, which pursues him to his very retreat. But the fox is not hunted by quadrupeds alone; for the birds, who know him to be their mortal enemy, attend him in his excursions, and give each other notice of the approaching danger. The crow, the magpie, &c. attend him as he proceeds, hovering and chattering, and thus the sportsman sometimes recovers the chase, which, but for these signals, would have been inevitably lost. So that it is the fate of this petty plunderer to be detested by every rank of animals: all the weaker classes shun, and many of the stronger pursue, him.

The fox, of all wild animals, is most subject to the influence of climate. The generality of foxes are of a brown red colour, but in the colder countries round the pole, the foxes are of all colours, black, blue, grey, iron-grey, silver-grey, and white; these variations, however, proceed from the season of the year, as, for instance on the coast of Labrador, the fox, which is grey in summer, will become white in winter, thus accommodating itself to the state of the country, as it were, and assuming the colour of the snow by which it is surrounded. The common kind, however, is more universally diffused than any of the others, being found in Europe, in the temperate climates of Asia, and also in America; they are seldom met with in Africa. There are three varieties of this animal in Great Britain; and these are established rather upon a difference of size than of colour or form. The greyhound-fox is the largest, the tallest, and the boldest; and is chiefly found in the mountainous districts and the hills of the north. The mastiff-fox is less, but more strongly built; the cur-fox is the least of the three: but generally affords the best diversion.

The fox prepares for himself a den, under ground, to which he retreats in cases of danger; but he frequently prefers forming himself a place of repose above ground, which is called a *kennel*, and in which he spends the day, if undisturbed. Foxes grow till they are eighteen months old, and live thirteen or fourteen years.

Of all animals the fox has the most significant eye; by which is expressed every passion of love, fear, hatred, &c. He is remarkably playful; but, like all savage creatures, half reclaimed, will, on the least offence, bite even those with whom he is the most familiar. He languishes when deprived of liberty; and if kept too long in a state of confinement, will frequently die of melancholy. When abroad, he is often seen to amuse himself with his fine bushy tail, running occasionally for a considerable time in circles to catch it. In cold weather, he wraps it round his nose. The fox has a broad head, a sharp snout, a flat forehead, erect ears, eyes obliquely seated. He has a great resemblance to the dog, especially in his internal parts; his head, however, is larger in proportion to his body, his ears shorter, and his eyes differently placed.

In Japan, where the fox is very common, the natives believe him to be animated by the devil; and their historical and sacred writings are filled with strange accounts respecting him.

The smell of the fox is proverbially offensive; and is supposed to proceed, as in many other quadrupeds, from glands situated near the tail. The rank or general smell of the fox so exactly resembles the *root of Crown Imperial* as not to be distinguished from it. He has a yelping kind of bark, which consists of a quick succession of similar tones, at the end of which he generally raises his voice like the cry of the peacock. In winter, and particularly during frost and snow, and when he goes to clicket, he yelps much; but in summer he is almost entirely silent, and during this season he casts his hair. Like the wolf, he allows himself to be killed with a bludgeon without

complaining, and he always defends himself to the last with the utmost bravery: his bite is dangerous, and the severest blows will not induce him to quit his hold; he fights in silence until torn to pieces, nor has he scarcely ever been known to cry out when seized by the hounds.

The following instance is a striking proof of the fox's instinctive sagacity: The old Duke of Grafton, who had his hounds at Croydon, occasionally had foxes taken in Whittlebury forest, and sent up in the venison cart to London, for the purpose of being turned down the next morning before the hounds. In the course of these proceedings, a fox was taken from a particular coppice in the forest, and forwarded in the usual manner. The fox made his escape when hunted, and, some time after, a fox was caught in the identical coppice, the appearance of which was so strikingly like the one obtained a little time before in the same place, that the keeper entertained a strong suspicion it was the fox which had before fallen into his hands. The fox was again sent to Croydon, again hunted and again escaped. Some time after, a fox was taken in the same coppice, which those engaged in the business were well assured they had captured twice before. Under these circumstances, he had one ear slit, and some holes punched through the other, in order thus to place the matter beyond dispute should the fox again make his way back. Thus distinguished, he was again despatched to the hunting ground, and again eluded the hounds; and in the course of a few weeks was retaken in the same place. After having thus beaten his pursuers three times, and regained as often his old and favourite asylum, he ought to have been spared; but he was turned down a fourth time; and, after a very severe chase, was killed.

In 1793, a fox in the neighbourhood of Imber, Wilts, being hard run, took shelter under the covering of a well, and by the endeavours used to extricate him thence, was precipitated to the bottom, a depth of one hundred feet: the basket was let down; he laid hold of it, and was drawn up some way, when he again fell; the bucket being let down a second time, he was drawn up safe; after which he was turned off, and beat the hounds.

Dr. Goldsmith asserts, that a bitch fox, which it appears had but one cub, was unkennelled by the hounds, near Chelmsford, in Essex, when the animal, braving every danger, took the cub in her mouth and ran with it for some miles. At length being driven through a farm-yard, she was attacked by a mastiff, and obliged to drop her cub, which was taken up by the farmer. She, however, beat her pursuers, and got clear off.

In the year 1785, the hounds of Mr. B. Dudley frequently had a good drag on the banks of the Crouch river in Essex, but without finding their fox. As, however, they were one morning drawing the remote church-yard of Crickseth, which was overgrown with thick bushes, a labouring man informed the huntsman that he was too late, as renard had crept off when he heard the hounds challenge about a quarter of an hour ago. In consequence of this information the

hounds chopped in different spots for several miles; but a fall of sleet prevented their reaching the fox that day. A week or two afterwards he was found in an adjoining copse, and after a lingering run of upwards of two hours he shaped his course to the church-yard in question. The hounds reached the place and came to a check; upon which a bitch, named Gaylass, raised herself against an old buttress of the church, and gave tongue. The master of the hounds dismounted, and, with another of the gentlemen, ascended the buttress up to the roof of the church, which was very low, and thickly covered with ivy, amongst which they found several fresh kennels. Some of the sportsmen below lifted several of the hounds upon the roof, where they were instantly in full cry, and where the fox was immediately killed.

The late Mr. Selby had a tame fox that used to run with his fox hounds; and this circumstance had not the effect of preventing the dogs from pursuing their chase in the fields, in which, it would appear, the tame fox eagerly joined.

In 1805, Mr. Salter, of Rickmansworth, Herts, had a fox that lay constantly in the kennel with his harriers; he was completely master of the feeding-yard, not suffering a hound to eat near him until he was satisfied himself.

In the year 1813, a curious exhibition took place in the Hundred House Meadow, Witley:—five wild rabbits were singly turned down, at an assigned distance, before a dog-fox, trained by Mr. C. Tearne, of Stockton, Worcestershire; and, after an excellent course, were severally killed by renard in very capital style.

At the Golden Bear, Reading, some years ago, a young fox had been placed in a wheel, and taught to turn the jack. After some time, he escaped and regained his native woods. Here he met the fate common to his species; he was pursued by the hounds, and, in his flight, ran through the town of Reading, and, springing over the half-door of the kitchen, jumped into the wheel and resumed his old occupation, in the very place where he had formerly been brought up, and thus saved his life.

We shall conclude the present article with a short, but interesting, account of the Arctic fox, which exhibits the manners of this animal, where it is but little acquainted with human nature, or the power of civilized man.—The arctic fox, as we have already observed, is only to be met with in the frozen regions of the north, but they exist in incredible numbers in the islands of the frozen ocean; and Steller has given us the following ample and interesting description of their manners.

“During my unfortunate abode (says he) on Behring’s Island, I had but too many opportunities of studying the nature of these animals; which far exceed the common fox in impudence, cunning, and roguery. The narrative of the innumerable tricks they played us might vie with Albertus Julius’s history of the Apes on the Island of Saxonburgh. They forced themselves into our habitations by night as well as by day, stealing all that they could carry off—even things

that were of no use to them, as knives, sticks, and clothes. They were so extremely ingenious as to roll down our casks of provisions, several *poods* (the pood is equal to forty Russian pounds, each of which is something less than the English pound) in weight; and then steal the meat out with such skill, that, at first, we could not bring ourselves to ascribe the theft to them. While employed in stripping an animal of its skin, it has often happened that we could not avoid stabbing two or three foxes, from their rapacity in tearing the flesh out of our hands. If we buried it ever so carefully, and even added stones to the weight of the earth that was upon it, they not only found it out, but with their shoulders pushed away the stones, by lying under them, and in this manner helping one another. If, in order to secure it, we put any animal on the top of a high post in the air, they either dug up the earth at the bottom, and thus tumbled the whole down; or, one of them climbed up, and, with incredible artifice and dexterity, threw down what was upon it.

“They watched all our motions and accompanied us in whatever we were about to do. If the sea threw up an animal of any kind, they devoured it before we could arrive to rescue it from them; and if they could not consume the whole of it at once, they trailed it in portions to the mountains, where they buried it under stones before our eyes, running to and fro as long as any thing remained to be conveyed away. While this was doing, others stood on guard and watched us. If they saw any one coming at a distance, the whole troop would combine at once and begin digging altogether in the sand till even a sea bear in their possession would be so completely buried under the surface that not a trace of it could be seen. In the night time, when we slept in the fields, they came and pulled off our night-caps, and stole our gloves from under our heads, with the beaver coverings and the skins that we lay upon. In consequence of this, we always slept with our clubs in our hands, that, if they awoke us, we might drive them away or knock them down.

“When we made a halt to rest by the way, they gathered round us, and played a thousand tricks in our view; and when we sat still they approached us so near that they gnawed the thongs of our shoes. If we lay down as if intending to sleep, they came and smelt at our noses to find whether we were dead or alive. On our first arrival, they bit off the nose, fingers, and toes of our dead, while we were preparing the grave; and thronged in such a manner about the infirm and sick that it was with the greatest difficulty we could keep them off.

“Every morning we saw these audacious animals prowling about among the sea lions and sea bears lying on the strand; smelling at such as were asleep to discover if some of them might not be dead; if that happened to be the case, they proceeded to dissect him immediately, and soon afterwards all were at work in dragging the parts away. Because the sea lions in their sleep over-lay their young, the foxes every morning examined the whole herd of them, one by one, as if conscious of this circumstance; and immediately dragged away the dead cubs from their dams.

"As they would not suffer us to be at rest neither night nor day, we became so exasperated against them, that we killed them, young and old, and harassed them by every means we could devise. When we awoke in the morning there always lay two or three that had been knocked on the head the preceding night; and I can safely affirm, that, during my stay upon the island, I killed above two hundred of these animals with my own hands. On the third day after my arrival, I knocked down with a club, within the space of three hours, upwards of seventy of them, and made a covering for my hut with their skins. They were so ravenous, that with one hand we could hold to them a piece of flesh, and with a stick or axe in the other could knock them down."

FOX HUNTING, is the most impassioned, the most maddening, of all the diversions of the field. It is a rapturous gratification to which every effort of the pen becomes inadequate in its attempts at description—it must be seen to be perfectly understood—it must be felt to be enjoyed. The inhabitants of these islands are the best sportsmen in the world, and have long been in possession of the best hounds also. The opinion which foreigners entertain of the English, in regard to their proficiency in the sports of the field may be gathered from the following: In writing to his friend, Bedford observes—"You may remember perhaps when we were hunting together at Turin, and the hounds had lost the stag, and the *piqueurs* (still more in fault than they) knew not which way to try, the king bid them ask *Milord Anglois*;—nor is it to be wondered at that an Englishman should be thought to understand the art of hunting, when the hounds this country produces are universally allowed to be the best in the whole world."

The chase of the fox, however, like many other sciences, has been in a state of progressive improvement for many years. An author, who wrote in the time of William III. in comparing the pursuit of the stag, the fox, and the hare, observes, "The stag, I confess, is a noble prize; and as the taking it requires a large pack of dogs, the very best horses, and a great expense, to the nobility and men of noble state, I have long since resigned it. The pursuit after the fox is also violent, and rather fit for those youthful heroes who glory in breaking the hearts of their horses, and venturing their own necks. The flight of these two animals is swift, and (though they make some few heads and turnings) most commonly in straight lines towards a place of refuge at some distance; the scent they

leave is generally so high, that the pack (though ever so well matched) is forced to follow after two or three strong winded leaders in a straggling yelping string; and the horsemen are cast though ever so well mounted: by this means, the music is broken, the art of the huntsman of little use, and the pleasure of those who designed to be spectators, dwindles into inquiries *which way the dogs went*? However, as these games afford an opportunity to our generous youth, to shew their courage, to boast of the performance of themselves and their horses, and to excel one another in feats of activity; as the preservation of lambs or geese is an act of charity to the honest farmer; and as a venison pasty is a savoury ornament to my lady's table, I would by no means deprecate the triumphs obtained by our gallant Nimrods in the conquest of such beasts.

"Yet I hope for pardon from my more sprightly brethren, if I give my vote for the innocent hare above all other game. The transports of every mortal breast at the sight of that little quadruped is no less amazing than unaccountable, and has often made me inclined to imagine she has some hidden, mechanical, attractive power over man as well as beast: whatever it be, it ought to be a constant motive of gratitude to the indulgent Creator, that has furnished us with this physic, so delicious to the taste, as well as salutary in effect. Let the philosopher, the grave Stoic himself, be present at the tracing and unravelling the morning walk, and see this subtle absconding creature suddenly starting in view of the whole cry, and he shall feel a passion that all his affected apathy cannot cover. Let the most morose and incredulous sceptic suffer himself to be persuaded to ride the chase, or but to stand on an eminence and observe the perplexing shifts and wiles of



FOX HUNTING.

the flyer and pursuers, and he must be convinced that God's providence is over all his works, that the minutest and vilest parts of the creation have been the care and contrivance of his infinite wisdom ! The swiftness and subtlety of this incomparable creature demonstrate that she was made to give us pleasure, with purpose to tempt us into the wholesome fields. The doublings and indentures she is perpetually making argues a design in their great Creator that every hound should come in to bear a part of the chorus, that each should have an opportunity of shewing his acuteness and policy in the pursuit ; and the tours and rings that she naturally traverses and repeats over the same ground, gives an advantage to every one of the company to enjoy their share, even old men and maidens.

"The chase after the fox or stag is violent, and little more than riding and running ; but the hare displays the very art of hunting ; she affords a pleasure worthy of a philosopher, a curiosity that may justly raise the admiration of the wisest statesman, physician, or divine. Let the most learned and inquisitive naturalist dissect the carcase of this feeble animal, let him carefully trace every sinew and muscle, let him note the smallness of her head and neck, the fulness and prominency of her eyes, the leanness of her shoulders, the depth of her chest, the largeness of her heart and lungs, the strength of her joints, the hardness of her little bones, the firm braces of her back, the slenderness of her belly, the portable shape of her paps or udders, the measure of her ears, the firmness of her gaskins, the superior length of her hinder legs, the obscurity of her colour, and the inimitable contexture of her feet ; and let him then declare the causes and ends of this wonderful formation ; let them dare to say she could have been formed better in any one part to qualify her for lying hid in her form, for nimbleness of flight, for holding out against her foes, or for giving pleasure to man."

Such are the notions of a sportsman of the old school, of one who never witnessed fox hunting in perfection, who was passionately attached to the pursuit of the hare, whose opinion will have very little influence at the present day, at least as far as relates to the chase of the fox. In the time of Beckford fox hunting had very much improved, and his opinion of the comparative merits of the chase of the fox and the pursuit of the hare may be very

clearly ascertained from various observations scattered through his work :—in one place, he remarks, that hare hunting is very well as a gallop before dinner ; in another, that the mere finding of a fox is superior to the best run with a hare ; and his comparative remarks on hunting still further elucidate the subject, or, at least, place in a clearer point of view his particular notions upon it :—"Fox hunting, an acquaintance of mine says, is followed because you can ride hard, and do less harm in that than any other hunting. There may be some truth in the observation (continues Beckford) ; but to such as love the riding part only of hunting, would not a trail scent be much more suitable? Gentlemen, who hunt for the sake of a ride, who are indifferent about the hounds, and know little of the business, if they do no harm, it is to the full as much as we have reason to expect from them ; whilst those of a contrary description, do good, and have much greater pleasure. Such as are acquainted with the hounds, and can at times assist them, find the sport more interesting, and frequently have the satisfaction to think, that they themselves contribute to the success of the day. This is a pleasure you often enjoy ; a pleasure without any regret attending it. I know not what effect it may have on you ; but I know that my spirits are always good after good sport in hunting ; nor is the rest of the day ever disagreeable to me afterwards. What are other sports compared with this, which is full of enthusiasm ! Fishing is, in my opinion, a dull diversion ; shooting, though it admits of a companion, does not allow of many : both, therefore, may be considered as selfish and solitary amusements compared with hunting ; to which, as many as please are welcome. The one might teach patience to a philosopher ; and the other, though it might occasion great fatigue to the body, seldom affords much occupation to the mind. Whereas, fox hunting is a kind of warfare—its uncertainties, its fatigues, its difficulties, and its dangers, rendering it interesting above all other diversions."

Notwithstanding the observations made above, that fox hunting has much improved since the time of Beckford ; yet his "Letters" may be regarded as the text book of the chase, or as the sterling principles of fox hunting.—He says "I shall not pretend to lay down rules which are to be equally good in every country ; I shall think myself sufficiently justified

in recommending such as have been tried with success in the countries where I have generally hunted. I need not, I think, advise you not to adopt too easily the opinions of other men. You will hear a tall man say it is nonsense to ride any but large horses ; and every little man in company will immediately sell his little horses, buy such as he can hardly mount, and ride them in hilly countries, for which they are totally unfit. Pride induces some men to dictate ; indolence makes others like to be dictated to ; so both find their account in it."

On the subject of the kennel, Beckford remarks, that "it is not only the first thing you should do (that is, building a kennel), but it is also the most important. As often as your mind may alter, so often may you easily change from one kind of hound to another ; but your kennel will still remain the same ;" and therefore it is highly advisable that it should be planned and built in a proper manner. It is true,

"Upon some little eminence erect,
And fronting to the ruddy dawn ; its courts,
On either hand, wide op'ning to receive
The sun's all cheering beams, when mild he shines,
And gilds the mountain tops."

SOMERVILE.

Such as Somerville directs may be the situation ; its size must be suited to the number of its inhabitants. Neatness should be its characteristic without, and cleanliness within. There are some objections to the kennel being near the house :—"I foresee still more (says Beckford) to its being at a distance: there is a vulgar saying, that it is the master's eye that makes the horse fat ; I can assure you it is even more necessary in the kennel, where cleanliness is not less essential than food."

Two kennels seem absolutely necessary to the well-being of the hounds ; when there is but one it is seldom sweet ; and, when cleaned out, particularly in winter, the hounds suffer both whilst it is cleaning, and as long as it remains wet afterwards. One of these, for the sake of clearness and perspicuity, may be called the *hunting kennel*, or that kennel into which the hounds are drafted that are to hunt the next day. Used always to the same kennel, the hounds will be drafted with little trouble ; they will answer to their names more readily, and you may count your hounds into the kennel with as much ease as a shepherd counts his sheep out of the fold.

hounds may be kept in barns and stables' "but those who keep them in such places can best inform you whether their hounds are capable of answering the purpose for which they are kept." The sense of smelling in a hound is so exquisite that every stench must be hurtful to it : it is that faculty on which the hopes of the sportsman depend ; it is that which must lead him over greasy fallows, where the feet of the game pursued, being clogged, leave little scent behind, as well as over stony roads, through watery meads, and where sheep have stained the ground.

Cleanliness, therefore, is as indispensable to the nose of a hound as it is essential to his health. Dogs are naturally cleanly animals : they seldom, when they can help it, dung where they lie : air and fresh straw are necessary to keep them healthy. Poverty and filthiness will produce that loathsome disease, the mange. The kennel therefore should be the particular care of the sportsman :—

When the feeder first comes to the kennel in the morning, he should let out the hounds into the outer court, at the same time opening the door of the hunting kennel, lest want of rest, or bad weather, should incline them to go into it. The lodging-room should then be cleaned out, the doors and windows of it opened, the litter shaken up, and that whole kennel made sweet and clean before the hounds return to it again. The great court and other kennels are not less to be attended to, nor should any omission, hurtful to the hounds, be passed over in silence.

The floor of each lodging-room should be flagged (that is, paved with large stones) and sloped on each side to run to the centre, with a gutter to carry off the water, that, when they are washed, they may soon be dry. If water should stand, through any fault in the floor, it should be carefully mopped up ; for, as warmth is in the greatest degree necessary to hounds after work, so damps are equally prejudicial. So convinced was Beckford of the necessity of uncommon attention in the kennel, that, in writing to his friend, he thus expresses himself :—"You will think me perhaps too particular in these directions ; yet there can be no harm in

your knowing what your servants ought to do; as it is not impossible but that it may be sometimes necessary for you to see that it is done. In your military profession, you are perfectly acquainted with the duties of a common soldier, and though you have no further business with the minutæ of it, there is no doubt but you still find the knowledge of them useful to you: believe me, they may be useful here; and you will pardon me, I hope, if I wish to see you a Martinet in the kennel, as well as in the field. Orders given without skill are seldom well obeyed, and where the master is either ignorant, or inattentive, the servant will be idle."

The kennel should have three doors, two in the front and one in the back; the last to have a lattice window in it, with a wooden shutter, which is constantly to be closed when the hounds are in, except in summer, when it should be left open all the day. This door answers two very necessary purposes: it gives an opportunity of carrying out the straw, when the lodging-room is cleaned, and as it is opposite to the window, will be a means to let in a thorough current of air, which will greatly contribute to the keeping of it sweet and wholesome. The other doors will be of use in drying the room, when the hounds are out; and, as one is to be kept shut, and the other hooked back (allowing just room for a dog to pass) they are not liable to any objection. The great window in the centre should have a folding shutter; half or the whole of which may be shut at nights, according to the weather; and the kennel, by these means, may be kept warm or cool, just as you please to have them. Beckford, in speaking of his own kennel, says, "The two great lodging-rooms are exactly alike; and as each has a court belonging to it, are distinct kennels, and are at the opposite ends of the building; in the centre of which is the boiling-house and feeding-yard; and on each side a lesser kennel, either for hounds that are drafted off, hounds that are lame or sick, or for any other purposes, as occasion may require. At the back of which, as they are but half the depth of the two great kennels, are places for coals, &c. for the use of the kennel. There is also a small building in the rear for hot bitches. The floors of the inner courts, like to those of the lodging-rooms, are bricked and sloped to run to the centre, and a channel of water, brought in by a leaden pipe, runs through the middle of them. In the centre of each

court is a well, large enough to dip a bucket to clean the kennels; this must be faced with stone, or it will be often out of repair. In the feeding yard, you must have a wooden cover."

The benches should have holes or interstices to let the urine through, with hinges and hooks in the wall, that they may fold up for the greater convenience of washing out the kennel; and they should be made as low as possible, that a tired hound may have no difficulty in jumping up. The boiler should be cast-iron.

Beckford continues, and, speaking of his own kennel, says—"the rest of the kennel consists of a large court in front, which is also bricked, having a grass court adjoining, and a little brook running through the middle of it. The earth, which was taken out of it, is thrown up into a mount, where the hounds in summer delight to sit. This court is planted round with trees, and has besides a lime tree, and some horse chesnut trees near the middle of it, for the sake of shade. A high pale incloses the whole, part of which to the height of about four feet is close; the other open; the interstices are about two inches wide. The grass court is pitched near the pales to prevent the hounds from scratching out.—If you cannot guess the intention of the posts you see in the courts, there is scarcely an inn window on any road, where the following lines will not let you into the secret:—

'So dogs will p— where dogs have
p—d before.'

This is done to save the trees, to which the urinary salts are prejudicial. If they are at first backward in coming to them, bind some straw round the bottom, and rub it with galbanum. The brook in the grass court may serve as a stew; your fish will be very safe.

At the back of the kennel is a house, thatched and furzed up at the sides, big enough to contain at least a load of straw. Here should be a pit ready to receive the dung, and a gallows for the flesh. The gallows should have a thatched roof, and a circular board at the posts of it to prevent vermin from climbing up.

A stove, I believe, is made use of in some kennels; but where the feeder is a good one, a mop properly used will render it unnecessary. I have a little rick of hay in the grass yard, which I think is of use to keep the hounds clear and fine in their coats, you will find them frequently rubbing themselves against it;

the shade of it also is useful to them in summer. If ticks at any time should be troublesome in your kennel, let the walls of it be well washed: if that does not destroy them, the walls should then be whitewashed.

In the summer, when you do not hunt, one kennel will be sufficient; the other then may be for the young hounds, who should also have the grass court adjoining it. It is best at that time of the year to keep them separate, and it prevents many accidents which otherwise might happen; nor should they be put together till the hunting season begins. If your hounds are very quarrelsome, the feeder may sleep in a cot in the kennel adjoining; and if they are well chastised at the first quarrel, his voice will be sufficient to settle all their differences afterwards.

My kennel is close to the road side, but it was unavoidable. This is the reason why my front pale is close, and only the side ones open; it is a great fault; avoid it if you can, and your hounds will be the quieter.

Upon looking over my letter, I find I begun with Mr. Somerville, recommending a high situation for the kennel, and afterwards talk of a brook running through the middle of it; I am afraid you will not be able to unite these two advantages; in which case, there is no doubt but water should be preferred. The mount I have mentioned will answer all the purposes of an eminence. Besides, there should be moveable stages on wheels for the hounds to lie upon, at any rate, however, let your soil be a dry one."

Beckford's establishment consisted of

about forty couple of hunting hounds, his kennel was made for the requisite accommodation, and beyond a doubt well planned for the purpose. A similar plan, upon an enlarged scale, would, of course, answer for a more extensive establishment; and most of the modern fox kennels contain more than the number of hunting hounds above mentioned. Those, however, who contemplate building a kennel for hounds, would do well to visit several of the more celebrated establishments, as well as any others which may fall in their way, as it seldom happens but each contains some little improvement; and thus all that was desirable might be united.

In regard to the tenants of the kennel, the hounds, various opinions will be formed. Beckford says he prefers hounds of the middle size; and says, that all middle sized animals are strongest and best able to endure fatigue. In height, as well as the colour of hounds, most sportsmen have their prejudices; but, in their shape, there cannot be much diversity of opinion. Some sportsmen boldly affirm, that a small hound will oftentimes beat a large one; that he will climb hills better, and go through cover quicker; whilst others, are not less ready to assert, that a large hound will make his way in any country, will get better through the dirt than a small one; and that no fence, however high, can stop him. There is a certain size best adapted for business, which is that between the two extremes, and such hounds will not suffer themselves to be disgraced in any country. That acute observer, Somerville, thus clearly expresses it:—

“But here a mean
Observe, nor the large hound prefer, of size
Gigantic; he, in the thick-woven covert,
Painfully tugs, or in the thorny brake,
Torn and embarrass'd, bleeds. But, if too small,
The pigmy brood in every furrow swims;
Mould'd in the clogging clay, panting they lag
Behind inglorious; or else, shivering, creep,
Benumb'd and faint, beneath the sheltering thorn.
For hounds of middle size, active and strong,
Will better answer all thy various ends,
And crown thy pleasing labours with success.”

As far as relates to appearances, to look well, they should be nearly all of a size, and seem as if they belonged to the same family. If handsome withal, they are then perfect.

There are essential points in the shape of a hound which ought always to be at-

tended to by a sportsman; for if he is not of a perfect symmetry, he will neither run fast, nor bear much work: he has much to undergo, and should have strength proportioned to it. His legs should have the true and peculiar straightness of nature; his feet should be round and small,

his toes bony and narrow, his chest deep, and back broad ; his head (contrary to the generally received opinion) should be *large*. Such young hounds as are out at the elbows, and such as are weak from the

knee to the foot, should never be taken into the pack.

Somerville thus describes what he considers as a perfect hound :—

————— “ See there with count'nance blythe,
And with a courtly grin, the fawning hound
Salutes thee cōw'ring ; his wide op'ning nose
Upwards he curls, and his large sloe-black eyes
Melt in soft blandishments and humble joy ;
His glossy skin, or yellow, pied, or blue,
In lights or shades, by nature's pencil drawn,
Reflects the various tints ; his ears and legs,
Fleckt here and there, in gay enamell'd pride,
Rival the speckled pard ; his rush-grown tail
O'er his broad back bends in an ample arch ;
On shoulders clean, upright and firm he stands ;
His round cat foot, straight hams, and wide-spread thighs,
And his low-dropping chest, confess his speed,
His strength, his wind, or on the steepy hill,
Or far extended plain ; in every part
So well proportioned, that the nicer skill
Of Phidias himself can't blame thy choice.
Of such compose thy pack.”—————

Somerville says nothing of the head of the hound, which is, after all, the most important consideration.

The author of an *Essay on Hunting*, published, as before observed, about the reign of William III. and which has been since several times reprinted, on the subject of hounds makes the following observations :—“ The most satisfactory reply to every hunter is, that his own kind is the best. But such as are setting up a new cry, I would advise to begin to breed on the middle sized dogs, between the southern hound and the northern beagle. 'Tis true, the finest and most curious sport is generally with the former. Whether it be the particular formation of their long trunks, or the extraordinary moisture that always cleaves to the nose and lips of this sort of dogs, I need not inquire in this place ; but certain it is, that they are endued with the most accurate sense of smelling, and can often take and distinguish the scent an hour after the lighter beagles can make nothing of it. Their slowness also better disposes them to receive the commands and directions of the huntsman ; and their much phlegm (for there seems to be a difference in the constitution of other animals as well as man) ; I say, their phlegm gives them patience to proceed with caution and regularity, to make sure of every step as they go, carefully to describe every indenture, to unravel each puzzling trick of figure. But

these grave sort of dogs are fittest for masters of the same temper. As they are able to hunt a cold scent, they are more apt to make it so, by their want of speed and vigour to push forward and keep it warm ; their exactness often renders them trifling and tedious ; and like some nice dames, who stand picking out every dust and mote, whilst they might dress the meat. By this means, though the hunt be finer, yet the prey (which is by some thought necessary to complete the sport) very often escapes ; the length of the chase takes up the time, and exposes them to numerous hazards of losing.”

The sportsmen of the old school had no clear or well defined ideas in regard to the olfactory organs of the dog. The cause of the comparative powers of the animal under consideration was never investigated, and as it became the fashion to regard a small head as beautiful in the hound, exertions were made to produce them in this way, and thus thousands of worthless animals were seen, which were blamed for their inferiority of a faculty, which the thoughtless breeders had rendered them incapable of receiving in greater perfection. No dog can possess a good nose, or an exquisite sense of smell, which has not a large head. This we will prove anon. Beckford, who has written so well and so judiciously on hunting, was equally in the dark on this subject :—In writing to his friend, he says “ I find that I have

mentioned a small head as one of the necessary points about a hound: you will please to understand it as relative to *beauty only*; for as to *goodness*, I believe large headed hounds are no way inferior. Men are apt to be prejudiced by the sort of hounds they themselves have been most accustomed to. Those who have been used to the sharp-nosed fox hound will hardly allow a large-headed dog to be a fox hound; yet both equally are fox hounds—speed and beauty are the chief excellencies of the one, whilst stoutness and tenderness of nose in hunting, are characteristic of the other. I could tell you that I have seen very good sport with very unhandsome packs, consisting of hounds of various sizes, differing from one another as much in shape and look, as in their colour; nor could I trace the least sign of consanguinity amongst them.”

The author of the *Shooter's Companion* (Johnson) was the first to explain and elucidate the olfactory organs of the dog, and to give a satisfactory reason why one dog could smell so much better than another. Johnson observes, “It is very well known that the sense of smell varies very much in dogs; or, to speak as a sportsman, some of them possess better noses than others. In dogs with broad heads, the *os ethmoides*, or sive bone, is much larger than in narrow headed dogs; the *lamina cribrose*, or the sive itself, is therefore more capacious and contains more openings; so that the olfactory nerves, which pass through it, are more numerous, and are divided more minutely, and thus that exquisite acuteness of smell is produced, which is found to obtain in the old English blood-hound, and all dogs with broad heads; this excellence or superiority of the olfactory organs, is further assisted by the largeness and flexibility of the lips and skin about the nose, which thus admit of a much greater extension of the olfactory nerves, and render them susceptible of external impressions. The olfactory nerves resemble a bunch of small white cords, one end of which is connected with the brain, while the other, descending the head, spreads into numerous ramifications, reaching to the edges of the lips, as well as to the extremity of the nose.

Hence the inferiority of the greyhound's sense of smell will be easily perceived: his head is narrow, while his lips are thin and compressed; and in consequence of this inflexibility, and the con-

tracted structure of the head, that breadth and extension of nerve are inadmissible; and, to make up, as it might seem, for this defect, nature has endued him with a celerity, which is not to be met with in any other species of the dog.

“All dogs, therefore, with broad heads must possess superior organs of smell: but it does not appear that a narrow or sharp nose presents any obstacle, as the main bulk of the olfactory nerves is situated in the head; but I think it is abundantly evident that a very long nose (like the greyhound) must always be detrimental, since the impression of scent, externally caught, must have farther to travel to the brain. The wolf and the fox appear to have sharp noses; but their heads are remarkably broad and capacious;” and even their noses will be found, upon a close inspection, to be extremely flexible; or, in other words, they have a considerable portion of very flexible upper lip, which is no doubt well calculated to receive the external impression of scent; and their olfactory organs, are unquestionably exquisite. Experience in fact fully verifies these conjectures: the dogs most remarkable for exquisite sense of smell are equally distinguished for broad heads; and the gradations are easily to be traced: the talbot, the original of all our modern hounds, exhibits the outward characteristics of superior olfactory nerves in a very obvious and striking manner: by crossing the talbot with something of the greyhound breed, the stag-hound was produced:—the speed of the talbot was thus increased; but as the head became more compressed, the sense of smell suffered accordingly. The fox-hound is a still further remove, and his olfactory organs are inferior to those of the stag-hound; and the reason in fact why well-bred stag-hounds distinguish the blown or hunted deer from the herd, is entirely owing to their proximity to the talbot; while the fox-hound, by being further removed, is unable to distinguish the hunted or blown fox, when another fox happens to come in the way during the chase.

“I have frequently thought (continues the author of the *Shooter's Companion*,) that the size of the ears is in some degree a criterion of the sense of smell. The talbot has amazing large ears; the stag-hound's are smaller; the fox-hound's the smallest of the three.” It is surprising to see how truly the ears of a hound mark his degree, as it were, or the distance he is removed

from the original talbot; the very first cross from this dog elevates the ears, in some degree, at the roots, and they are altogether smaller; they thus continue progressively, according as the animal becomes removed from the original stock.

Also, the voice, as far as relates to hounds (pointers and setters inclusively, as they are evidently of the hound tribe); is another remarkable characteristic. The talbot has the deepest and most powerful voice of any dog; the progressions are obvious.

"The pointer is remarkable for a broad, capacious head, as well as for large pendant ears; and those setters distinguished for the goodness of their olfactory powers, will be found to possess a very considerable expansion of the head, though their noses may taper more than the nose of the pointer. Thus, at first glance, a bull dog will be supposed to excel in this respect; but, on examination, it will be found that his head is rather chubby than broad, while the skin about the mouth is comparatively inflexible and compressed, his under jaw projected, and his nostrils thrown so far back as to prevent that immediate contact with external objects, which is seen to obtain in the dogs before mentioned; yet, notwithstanding all these objections, the bull dog's sense of smell is of a superior order, which arises no doubt from the capaciousness of his head.

"The sense of smell, like most other faculties, is improved by practice. Dogs which are kept in towns, and but little exercised, will always be found inferior to such as are quartered in the country."

Recurring again to Beckford, we repeat: "I have seen very good sport with very unhandsome packs, consisting of hounds of various sizes, differing from one another as much in shape and look, as in their colour; nor could I trace the least sign of consanguinity amongst them: considered separately the hounds were good; as a pack, they were not to be commended; nor could you be satisfied with any thing so incomplete. You will find nothing so essential to your sport as that your hounds run well together; nor can this end be better attained than by keeping them, as near as you can, of the same sort, size, and shape."

Perhaps the greatest excellence of a pack of fox-hounds is the head they carry; and that pack may be said to go the fastest that can run ten miles in the shortest period, notwithstanding the hounds separately may not run so fast as many

others. A pack of hounds, considered in a collective body, go fast in proportion to the excellence of their noses and the head they carry:—hence a perfect fox-hound should be equally remarkable for speed, for exquisite sense of smell, and also for the most persevering spirit and capability of endurance. To unite such qualifications there are certain indispensable requisites, such as a body and legs formed for strength and motion, a capacious head, &c.

The following extract of a letter of Will Deane, Earl Fitzwilliam's huntsman, is strikingly illustrative of the remarks just made on the subject of the hound's head:—amongst other observations, Deane remarked, that "he could not guess at Lord Foley's dislike of Glider (Glider was one of a draft of young hounds) then sent, which was of the best blood in the country, being got by Mr. Meynell's Glider out of Lord Fitzwilliam's Blossom, and was moreover the most promising young hound he had ever entered, unless his Lordship took a distaste to the *largeness of his head*; but he begged leave to assert, that although it might appear a little out of size, there was a world of mischief to the foxes contained in it." The event justified Deane's prediction in the utmost latitude, for Glider was a most capital dog, and long a favourite stallion hound, notwithstanding the magnitude of his head; which, by the bye, was the very fountain whence his superior excellence sprung.

In consequence of the rage, which for many years existed, for what was considered beauty in fox-hounds, these dogs were frequently bred in such a manner that they were not able to hunt at all; and it is very doubtful whether most of the modern fox-hounds are not bred with heads too small to contain the requisite quantity of olfactory nerves. We have stated above the qualities necessary to constitute the perfect fox-hound; and though speed must always be deemed an indispensable qualification, yet it is doubtful whether dogs a shade slower than the present very high bred fox-hounds, but with superior noses, would not get over the ground faster, or at least finish the run, in general, in a shorter period, as from their superior olfactory organs, they would be much less liable to checks. The uncommon speed of the modern fox-hound enables him to keep very near the fox, if the scent be good, and of course to kill him in high style; but it frequently

happens, and indeed must frequently so happen, that the narrow headed hounds are not able to hunt, owing to the unfavourable state of the atmosphere (see the article SCENT). Surely it is not impossible to unite the speed of the modern foxhound to more exquisite sense of smell, or better nose.

"Some hounds (says the author from which we have repeatedly quoted) that I have seen would creep all through the same hole, though they might have leapt the hedge, and would follow one another in a string as true as a team of cart-horses.—I had rather see them like the horses of the sun—all abreast.

A friend of mine killed thirty-seven brace of foxes in one season: twenty-nine of the foxes were killed without any intermission. I must tell you at the same time that they were killed by hounds bred from a pack of harriers; nor had they I believe a single skirter belonging to them. There is a pack now in my neighbourhood, of all sorts and sizes, which seldom miss a fox; when they run, there is a long string of them, and every fault is hit off by an old southern hound. However, out of the last eighteen foxes they hunted, they killed seventeen; and I have no doubt but as they become more complete more foxes will escape them. Packs which are composed of hounds of various kinds seldom run well together, nor do their tongues harmonize, yet they generally, I think, kill most foxes; but I must confess, that, unless I like their style of killing them, whatever may be their success, I cannot be completely satisfied. I once asked the famous Will. Crane how his hounds behaved—'very well, Sir, (he replied) they never come to a fault but they spread like a sky-rocket.' Thus it should always be.

A famous sportsman asked a gentleman what he thought of his hounds—'Your pack is composed, Sir, (said he) of dogs which any other man would hang; they are all skirters.' This was taken as a compliment. However, do not think I recommend it to you as such; for though I am a great advocate for style, in the killing of a fox, yet I never forgive a professed skirter: where game is in plenty, they are always changing, and are the loss of more foxes than they kill."

The number of hounds to be kept must depend on circumstances, such as the nature of the country, how often it is intended to hunt, &c. The taking out too many hounds is a useless incumbrance; though it is not so material what your number is, as it is that all your hounds should be steady, and as nearly as possible of equal speed. About twenty couple would seem a medium or proper number—when a great number of hounds are taken out, they are very apt to divide, particularly in extensive covers. With forty couple of hunting hounds the sportsman may hunt three times a week; and, by thus keeping them in good exercise, will kill more foxes than if a greater number were kept, unless they went out oftener. Hounds that remain for any time without work always get out of wind, and become oftentimes riotous. The old and lame, such as are low in flesh, and such as you are sure idleness cannot spoil, are those which should be left at home.

Too many old hounds should not be kept.—If the hounds are to run well together none should be kept longer than five or six seasons; though there is no saying with certainty what number of seasons a hound will last.

A good feeder is an essential part of a fox hunting establishment.—He should be active, good tempered (for the sake of the animals entrusted to his care) and one who will punctually attend to any orders that may be given him. The whole should be under the eye of the master, as already observed; and he who allows a huntsman to manage his hounds as he pleases, without controul, literally keeps them for *his* amusement. Servants may be permitted to remonstrate, but they should never be suffered to disobey.

The keeping of the kennel sweet and clean cannot be too much impressed on the mind of the feeder; and if he sees the master exact, he will be so himself. The boiling for the hounds, mixing of the meat, and getting it ready for them at proper hours, is what the huntsman ought to superintend, or at least see that it is properly done. Dogs should not have their meat too hot; and it should be mixed up as thick as possible.

In speaking on this subject, Somervile thus expresses himself:—

"O'er all let cleanliness preside; no scraps
Bestrew the pavement, and no half-pick'd bones,
To kindle fierce debate, or to disgust
That nicer sense, on which the sportman's hope

And all his future triumphs must depend.
 Soon as the prowling pack, with eager joy,
 Have lapp'd their smoking viands, morn and eve,
 From the full cistern, lead the ductile streams,
 To wash thy court, well paved, nor spare thy pains;
 For much to health will cleanliness avail.
 Seek'st thou for hounds to climb the rocky steep,
 And brush th' entangled covert, whose nice scent
 O'er greasy fallows and frequented roads
 Can pick the dubious way? Banish far off
 Each noisome stench; let no offensive smell
 Invade thy wide inclosure, but admit
 The nitrous air and purifying breeze."

The huntsman should attend the feeding of the hounds, and they should be drafted according to the condition they are in. In all packs some hounds will feed better than others; some there are that will do with less meat; and it requires a nice eye and great attention to keep them in equal flesh:—it is what distinguishes a good kennel huntsman, and is of the utmost consequence. Huntsmen are apt to feed their hounds in too great a hurry:—it is no easy task to distinguish with nicety the order a pack of hounds are in, and the different degrees of it—to be done well it requires more than an ordinary degree of circumspection.

Beckford observes, "When my huntsman feeds the hounds, he calls them all over by their names, letting in each hound as he is called: it has its use—it uses them to their names, and teaches them to be obedient. Were it not for this, I should disapprove of it entirely: since it certainly requires more coolness and deliberation to distinguish with precision which are best entitled to precedence, than this method of feeding will admit of; and unless flesh is in great plenty, those that are called in last may not have a taste of it. To prevent this inconvenience, such as are low in flesh, had better, I think, be all drafted off into a separate kennel; by this means, the hounds that require flesh will have an equal share of it. If any are much poorer than the rest, they should be fed again—such hounds cannot be fed too often. If any in the pack are too fat, they should be drafted off, and not suffered to fill themselves. The others should eat what they will of the meat."

Notwithstanding the neutralizing manner in which such an authority as Mr. Beckford speaks of the method of feeding by calling them by their names, one by one; yet, it is an admirable plan, and may be very confidently recommended

for adoption—in fact there are few establishments where it is not practised. Indeed, this gentleman sneers at that discipline of the kennel, which cannot be too highly applauded:—He observes:—"I have been told that in one kennel in particular, the hounds are under such excellent management, that they are constantly fed with the door of the feeding yard open; and the rough nature of the foxhound is changed into so much politeness, that he waits at the door till he is invited in; and what perhaps is not less extraordinary, he comes out again, whether he has satisfied his hunger or not, the moment he is desired; the effect of severe discipline." He proceeds, "the gentleman who has carried this matter to its utmost perfection has attended to it regularly himself; has constantly acted on fixed principles, from which he has never deviated, and I believe has succeeded to the very utmost of his wishes. All hounds, more especially young ones, should be called over often in the kennel; and most huntsmen practice this lesson as they feed their hounds. They flog them while they feed them,—and if they have not always a bellyfull one way, they seldom fail to have it the other. It is not, however, my intention to oppose so general a practice, in which there may be some utility; I shall only observe that it should be used with discretion; lest the whip should fall heavily in the kennel on such as never deserve it in the field.

My hounds are generally fed about eleven o'clock; and if I am present I take the same opportunity to make my draft for the next day's hunting. I seldom, when I can help it, leave this to my huntsman; though it is necessary he should be present when the draft is made, that he may know what hounds he has out."

It is a bad custom to use hounds to the boiling-house, as it is apt to make them

nice, and may prevent them from ever eating their kennel meat. What they have should always be given them in the feeding yard, and, for the same reason, though it be flesh, it is better it should have some meal mixed with it.

If hounds are low in flesh, and have to go far to cover, they should have a little thin lap in the evening before hunting; though, generally speaking, hounds should be sharp set before hunting—they run the better for it.

If hounds, after long rest, should have become too fat, by feeding them for a day or two on thinner meat than you give the others, it will answer better than the usual method of giving them the same meat, but stinting them in the quantity of it.

Hounds should be turned into the grass court; or, where there is a convenient place, even out of the kennel for a few minutes, after feeding, to empty themselves; as it will contribute much to the cleanliness of the kennel.

Every day, when hounds come in from hunting, they should be carefully looked over, and such as have sustained any injury should be immediately attended to. If such hounds as are unable to work can be permitted to run about the house, it will be of great service to them.

The huntsman should pay particular attention to the health of the hounds; and if he is well acquainted with his business, he will generally prevent the ill-effects of disease by perceiving the incipient cause. Whenever a dog droops, and looks dull and heavy about the eyes, he should be instantly bled, which will relieve him immediately. Physic should be administered when they are costive. Recurring to Beckford, he says, "Every Thursday during the hunting season, my hounds have a pound of sulphur given them in their meat, and every Sunday throughout the year they have plenty of greens boiled up with it: I find it better to fix the days, as it is then less liable to be forgotten.—I used to give the wash from the kitchen, but I found it made them thirsty, and it is now omitted in the hunting season. A horse, fresh killed, is an excellent meal for hounds after a hard day; but they should not hunt till the third day after it. The bones broken are good food for poor hounds, as there is great proof in them. Sheep's trotters are very sweet food, and will be of service when horse flesh is not to be had. Oatmeal, I believe, makes the best meat for

hounds; barley is certainly the cheapest and on that account it is given in many kennels; but it is heating, does not mix up so well, nor is there near so much proof in it as in oatmeal. If mixed an equal quantity of each, it will then do very well. Much depends on the goodness of the meal itself, which, I believe, is not often attended to.

During the summer months, when my hounds do not hunt, they have seldom any flesh allowed them; and are kept low, contrary, I believe, to the usual practice of most kennels, whose many hounds in summer are but too often seen. Huntsmen sometimes content themselves with checking this disorder, when, with less trouble perhaps, they might prevent it. A regular course of whey and vegetables, during the hot months, must certainly be wholesome, and is without doubt the cause that a mangy hound is an unusual sight in my kennel. Every Monday and Thursday my hounds go for whey till the hunting season begins, are kept out several hours, and are often made to swim through rivers during the hot weather. After their last physic, and before they begin hunting, they are exercised on the turnpike road to harden their feet, which are washed with strong brine as soon as they come in. Little straw is necessary during the summer; but when they hunt, they cannot have too much, nor have it changed too often. In many kennels they don't boil for the hounds in summer, but give them meal only—in mine it is always boiled, but with this difference, that it is mixed up thin instead of thick. The physic I give is two pounds of sulphur, one pound of antimony, and a pint and a half of syrup of buckthorn, for about forty couple of hounds. In the winter season, the hounds should be shut up warm at night. If any hounds after hunting are missing, the straw house door should be left open; and if they have had a hard day, it may be as well to leave some meat there for them."

It is admitted that the hounds of this country are the best in the world; but it seems strange that they should degenerate in a foreign country: that this should be the case in the East or West Indies is not surprising, but that when taken to the Continent of Europe degeneracy should follow is a circumstance scarcely to be credited. The present race of English and Irish hounds were no doubt originally brought from the Continent (by the Nor-

mans); and therefore, when taken back again, the degeneracy complained of arises perhaps rather from neglect than any other cause. Thus sings Somerville :

“ In thee alone, fair land of liberty!
Is bred the perfect hound, in scent and speed
As yet unrivalled; while, in other climes,
Their virtue fails, a weak degenerate race.”

Admitting that the original stock of the present race of hounds was imported from the Continent of Europe, we are very well aware, that more than ordinary pains have been taken ever since in their breeding and improvement; and the most reasonable way of accounting for the degeneracy complained of is by supposing that foreigners do not pay the requisite attention, indispensably necessary in order to keep up the breed.

In the matter of breeding a considerable portion of judgment is requisite, and

the sportsman will find much for reflection in the propagation of hounds. There are, however, fixed principles from which no deviation is allowable. The first consideration is the size, shape, constitution, disposition, and qualities of the dog from which to breed; and on no account should a dog be made use of for this purpose that is a skirter, that has not a fine nose, or that is not stout and capable of endurance. This subject is very well elucidated by Somerville :—

“ Observe with care his shape, sort, colour, size.
Nor will sagacious huntsmen less regard
His inward habits; the vain babbler shun,
Ever loquacious, ever in the wrong,
His foolish offspring shall offend thine ears
With false alarms, and loud impertinence.
Nor less the shifting cur avoid, that breaks
Illusive from the pack; to the next hedge
Devious he strays, there every mouse he tries,
If haply then he cross the streaming scent,
Away he flies vain-glorious; and exults
As of the pack supreme, and in his speed
And strength unrivalled. Lo! cast far behind
His vext associates pant, and lab'ring strain
To climb the steep ascent. Soon as they reach
Th' insulting boaster, his false courage fails,
Behind he lags, doomed to the fatal noose,
His master's hate, and scorn of all the field.
What can from such be hop'd but a base breed
Of coward curs, a frantic, vagrant race?”

It is the judicious cross that makes the complete pack. The faults and imperfections of one breed may be remedied in another; and if this be properly attended to, the breeding of hounds may improve till improvement can go no further. An old dog should never be put to an old bitch. The individuals from which the sportsman breeds should be healthy of course, or a healthy offspring is scarcely to be expected. Should a favourite dog skirt a little, he should be put to a thorough line hunting bitch, and such a cross is very likely to succeed:—the only objection there can be to breeding from such a hound is, that as skirting is what most fox-hounds acquire from practice, there is some danger of its thus becoming natural

to them. A famous sportsman asserted that he frequently bred from brothers and sisters: this, however, we feel no hesitation in condemning in the most unqualified manner, as, from experience, many times repeated, we well know that such a plan will not answer: the progeny not only are weaker and more puny, but positively lose their faculties.

The bitches should be cautiously watched, and separated as soon as they manifest the least symptoms of becoming proud; for, though in general the bitch will not admit the dog for several days, or perhaps a week, after she has exhibited the first signs of desire, yet it is advisable not to trust where there is even a remote probability of doing wrong. Moreover,

the advances bitches make frequently portend mischief as well as love; and if not prevented in time, will not fail to set the whole kennel together by the ears, and

may occasion the death of some of the most valuable of its inhabitants—care only can prevent it—

“ Mark well the wanton females of thy pack,
That curl their taper tails, and frisking court
Their pyebald mates enamour'd; their red eyes
Flash fires impure; nor rest, nor food, they take,
Goaded by furious love. In sep'rate cells
Confine them now, lest bloody civil wars
Annoy thy peaceful state.—”

SOMERVILE.

Puppies should, if possible, be bred early in the year. Late puppies seldom come to much; these, at all events, should be put to the best walks and well nursed. When the bitches begin to get big, they should hunt no more: it would prove fatal to the whelps, if not to the bitch herself; nor is it safe for a bitch in an advanced state of gestation to remain in the kennel. Bitches will sometimes have an extraordinary number of whelps at a litter; in which case, if they are great favourites, some of them should be put to another bitch; or if this be not practicable, the sportsman must exercise his own judgment in regard to those which he keeps and those which he destroys. The bitches should be well fed while they have whelps upon them, and the whelps should remain with the bitch till they are able to take care of themselves. They will soon learn to lap milk, which will relieve the mother. The bitches, when their whelps are taken from them should be physicked. The distemper frequently makes dreadful havock with the whelps at their walks, which might be, in a great degree, prevented by proper management.—See the article DISEASES OF DOGS, page 217.

Beckford very judiciously observes—“ I have often heard, as an excuse for hounds not hunting a cold scent, that they were *too high bred*—I confess I know not what that means; but this I know, that hounds are frequently *too ill bred* to be of any service. It is judgment in the breeder,

and patience afterwards in the huntsman that makes them hunt.”

Young hounds are generally named when first put out, and sometimes indeed ridiculously enough; nor is it easy, where many are bred, to find suitable or harmonious names for all; particularly as it is usual to name all the whelps of one litter, with the same letter, which (to be systematically done) should also be the initial letter of the dog that got them, or the bitch that bred them.

It is indeed of little consequence what huntsmen call their hounds, as long as the dogs understand when they are spoken to. It is not usual to call a pointer Rockwood, or a greyhound Harmony; and such names as are expressive of speed, strength, courage, or other natural qualities in a hound may be regarded as most applicable to them. Some persons mark or brand their whelps, when they are first put out to prevent them being stolen, or if stolen, to lead to the recovery.

When young hounds are first taken in, they should be kept separate from the pack; and as it happens at a time of the year when there is little or no hunting, one of the kennels, and the grass court adjoining, may be easily given up to them. They will frisk and play, and their gambols frequently end in a battle; it is therefore less dangerous where they are equally matched.—What Somervile says on this subject, is not only very beautiful but much to the purpose:—

“ But here with watchful and observant eye,
Attend their frolicks, which too often end
In bloody broils and death. High o'er thy head
Wave thy resounding whip, and with a voice
Fierce-menacing o'er-rule the stern debate,
And quench their kindling rage; for oft in sport
Begun, combat ensues, growling they snarl,
Then on their haunches reared, rampant they seize
Each other's throats, with teeth and claws, in gore

Besmear'd, they wound, they tear, till on the ground
Panting, half dead, the conquer'd champion lies :
Then sudden all the base ignoble crowd,
Loud clamouring, seize the helpless worried wretch,
And, thirsting for his blood, drag different ways
His mangled carcase on th' ensanguin'd plain.
O breasts of pity void ! t'oppress the weak,
To point your vengeance at the friendless head,
And with one mutual cry, insult the fallen !
Emblem too just of man's degenerate race !"

It sometimes happens that a dislike is taken to some particular hound, when the safest way is to remove him; or it is very probable his fellows will kill him ultimately. It is no uncommon occurrence for a feeder, when he hears the hounds quarrel, to halloo, in the first place, to stop them. He then goes in amongst them, and flogs every hound he can come near. How much more reasonable, as well as more efficacious, would it be, were he to see which were the combatants before he speaks to them. Punishment would then fall, as it ought, on the guilty only. In all packs there are some hounds more quarrelsome than the rest; and it is from them all the mischief arises. If chastisement will not quiet them, it may be prudent to break their holders; for, since they are not necessary for them for the meat they have to eat, they are not likely to serve them in any good purpose.

Young hounds should be fed twice a day, as they seldom take kindly at first to the kennel meat, and the distemper is very apt to seize them at this time. It is better not to round them till they are fully settled; nor should it be put off till the hot weather, for then they would bleed too much. Some persons castrate dogs that are thin over the back, and also spay such bitches as will not be wanted to breed from. This is a practice we by no means recommend.

In breeding, the sportsman should be as little prejudiced as possible in favour of his own sort; but should send his best bitches to the best dogs, wherever he can find them. Those who breed only a few hounds may by chance have a good pack; whilst those who breed a great many (if at the same time they understand the business) reduce it to a certainty.

After the young hounds have been rounded, and are well reconciled to the kennel, know the huntsman, and begin to acknowledge their names, they should be then put into couples and walked out amongst sheep. Indeed, there is no harm in walking out the young hounds in couples as soon as they are taken into the kennel.

If any are particularly snappish and troublesome, the couples should be left loose about their necks in the kennel, till they become more reconciled to them. If any are more stubborn than the rest, they should be coupled to old hounds rather than to young ones; and two dogs should not be coupled together when it can be avoided. As young hounds are at first awkward, it may be advisable to send only a few out at a time with the people on foot; they will soon afterwards become handy enough to follow a horse, and care should be taken that the couples be not too loose, lest they should slip their necks out of the collar, and give trouble in catching them again.

When they have been frequently walked in this manner among sheep, a few may be uncoupled at a time, and such as offer to run after them must be chastised—in a little time, the cry of *'ware sheep* will stop them without the aid of the whip; and the less the whip is used the better. With proper care and attention they will soon become ashamed at even looking at sheep; but if once they are suffered to taste mutton, they will be reclaimed with the utmost difficulty, if at all. Various are the methods employed to break such dogs from sheep; the best remedy, however, is supposed to be a ram.

We repeat the following paragraph, which has already appeared under the article BREAKING DOGS.

It but too frequently happens that young dogs manifest an inclination to hunt and worry sheep, which must be instantly corrected. If repeated severe floggings have not the desired effect, the dog should be either tied to a strong ram, leaving a sufficient length of cord to allow the ram to make a run; or they should be confined together in a barn or some building. Flog the dog till he cries out, making use of the words *'ware sheep*. The ram will not fail to commence a furious attack upon him, and will butt him most violently. They should be kept together twenty minutes; the ram will not fail to continue his butting, and it may

not be amiss to flog the dog several times during this period, making use of the words just mentioned at the same time. This will most likely prevent the dog ever looking at sheep afterwards; unless, perhaps, where he has absolutely bitten them before this system of correction was put in practice, in which case there is no mode of correction or punishment that can be depended on; for, although the dog may not even notice sheep in the presence of any person, yet he will be very apt, nevertheless, to steal away, as opportunity may offer, for the purpose of depredation:—when dogs once have tasted mutton, as before observed, they are never to be trusted. Instances, indeed, have occurred, when the dog, after having been a little butted, has fiercely turned upon the ram, which he would have torn in pieces, had he not been prevented; but a circumstance of this sort rarely occurs, and, in the instances here alluded to, the dogs were grown too old to be cured by this or any other method short of close confinement or a halter. If a young dog look earnestly at a sheep, he should be corrected; and if he persevere in repeating this suspicious preface, recourse should be had to the ram, as by far the most effectual method that can be adopted. A dog should be corrected, in fact, the moment he is observed to manifest the slightest inclination even to notice sheep; as he will, if not checked, first look, then chase, and ultimately worry them.

This subject reminds us of an anecdote related by Beckford:—"A late lord of my acquaintance (says he) who had heard of this method, and whose whole pack had often been guilty of killing sheep, determined to punish them, and to that intent, put the largest ram that he could find into the kennel. The men with their whips and voices, and the ram with his horns, soon put the whole kennel into confusion and dismay, and the hounds and ram were then left together. Meeting a friend soon after—"Come (says he) come to the kennel, and see what rare sport the ram makes among the hounds: the old fellow lays about him stoutly, I assure you—egad, he trims them!—there is not a dog dares look him in the face! His friend, who is a compassionate man, pitied the hounds exceedingly, and asked if he was not afraid that some of them might be spoiled?—"No, d—n them (said he), they deserve it, and let them suffer.' On they went—all was quiet—they opened the kennel door, but saw neither ram, nor

hound. The ram by this time had been entirely eaten up; and the hounds, having filled their bellies, had retired to rest."

This circumstance carries with it its own commentary—what could be so thoughtless as to turn an unfortunate ram into a kennel of hounds! A single hound is a comparatively innocent and even cowardly creature:—a pack of hounds are the very reverse, each individual of which it is composed acquires an emulative courage, which, singly, he does not possess; or, at least, which he never exhibits.

Hounds should be frequently aired; and it may be advisable to take the old ones out one day, and the young ones another; or, if they are taken out together, the young ones should be in couples, unless they have become very tractable and obedient. Young hounds are always ready for any kind of mischief, and idleness might make even old ones too ready to join them in it.

When young hounds are to be stooped to a scent, it is most advisable to enter them at their own game—it will save much trouble afterwards. Many dogs, it is said, like that scent best to which they are first blooded; be this as it may, it is certainly most reasonable to use them to that which it is intended they should hunt. It may not be amiss, when they first begin to hunt, to put light collars upon them; as young hounds may easily get out of their knowledge; and shy ones, after they have been much beaten, may not choose to return home. Collars, in such cases, may prevent them being lost. Trail scents are by no means advisable for young hounds:—nor can any thing be more absurd than entering young fox hounds at hare.

"I know an old sportsman (says Beckford) a clergyman, who enters his young hounds first at a cat, which he drags along the ground for a mile or two, at the end of which he turns out a badger, first taking care to break his teeth; he takes out about two couple of old hounds along with the young ones, to hold them on. He never enters his young hounds but at vermin; for, he says, 'train up a child in the way he should go, and when he is old he will not depart from it.'"

Summer hunting, though indispensable to young hounds, is prejudicial to old ones; it is advisable, therefore, to reserve a few of the best draft hounds for the purpose of entering the young ones with, selecting such as are most likely to set them a good example. They should not

be skitters, but fair hunting hounds, such as love a scent, and that hunt closest on the line of it: it will be necessary that some of them should be good finders, and all must be steady. Thus the best instructions are procured for the young hounds, and at the same time this method prevents two evils, which would ensue were they taught by the whole pack; one, that of corrupting and getting into scrapes such as are not much wiser than themselves; and the other, that of occasioning much flogging and rating, which always shies and interrupts the hunting of an old hound. An old hound is a sagacious animal, and is not fond of trusting himself in the way of an enraged whipper-in, who, as experience has taught him, can flog, and flog unjustly.

As to the time for entering young hounds, that must depend on the country, or at least on the corn being cut: they should be entered as soon as possible; and, of course, in grass countries, summer or cub hunting may be commenced sooner than in districts where much corn is grown; and in woodlands it may be commenced almost at any time. If there are plenty of foxes, so that a sacrifice can be made of some of them, for the purpose of making the young hounds steady, they should be taken first where the least riot is likely to ensue, and if a litter can be found, there will be but little trouble with the young hounds afterwards.

Some are of opinion that such young hounds as are the most riotous at first become ultimately the best dogs. If, owing to a scarcity of foxes, young hounds should be stooped at hare, they should not be suffered to have the blood of her; nor should they receive much encouragement. Hare hunting has one advantage—hounds are chiefly in open ground, where you can easily command them; but notwithstanding that, if foxes are in tolerable plenty, they should be kept to their own game.

With young hounds, frequent hallooing is serviceable:—it keeps them forward, prevents their being lost, and hinders them from hunting after the rest. The oftener, therefore, a fox is seen and hallooed the better: it serves to let them in, makes them eager, induces them to exert themselves, and teaches them to be handy. However, though much hallooing may be advisable with young hounds, this is certainly not the case with old ones; yet, it may be justly observed, that there is a time when hallooing is of use, a time

when it is injurious, and a time when it is perfectly indifferent; but it is long practice and great attention that must teach the application.

Young hounds, at their first entering, cannot be encouraged too much.—When they are become handy, are fond of a scent, and begin to know what is *right*, it will be soon enough to chastise them for what is *wrong*; in which case, one severe flogging will save much trouble. Whenever a hound is flogged, the voice should be used as well as the whip; and the smack of the whip will often be found sufficiently effective to a hound that has already felt the lash. If any young hounds are unsteady, it may not be amiss to send them out by themselves.

If hounds are to be made steady from deer, they should see them often; and if, after the necessary probation, a cub is turned down before them, with some old hounds to lead them on, they will not be long unsteady.

Flogging hounds in kennel is unreasonable, unjust, and cruel. It is true, hounds that are old offenders, that are very riotous, and, at the same time, very cunning, may be difficult to catch—such hounds may be excepted—they deserve punishment whenever it happens, and it ought to be administered to them: the peace however and quiet of the kennel should not be often thus disturbed. When hounds offend, they should be punished; when caught in the fact, then let them suffer if possible.

When young hounds will stoop to a scent, are become handy, know a rate, and stop easily, they should be put into the pack—a few at a time only; nor is it perhaps well to do this till the pack have been out a few times by themselves, and are got well in blood. And when young hounds are taken out for the first time, it should be in a place where it is probable a fox will be immediately found.

The following admirable observations appear in Beckford's Letters:—"I was told the other day by a sportsman, that he considers the management of hounds as a regular system of education, from the time when they are first taken into the kennel: I perfectly agree with that gentleman; and am well convinced that, if you expect sagacity in your hound when he is old, you must be mindful what instruction he receives from you in his youth; for, as he is of all animals the most docile, he is also most liable to bad habits. A diversity of character, consti-

tution, and disposition, is to be observed among them, which, to be made the most of, must be carefully attended to, and treated differently."

Hounds should be often walked out among sheep, hares, and deer; it uses them to a rate. If hounds find improper game, and hunt it, they should be stopped and brought back; and as long as they will stop at a rate, they should not be chastised. Obedience is all that can be required of hounds, till they have been sufficiently taught the game they are to pursue: an obstinate deviation from it afterwards should never be pardoned.

Beckford says his huntsman "sometimes turns down a cat before the young hounds, which they hunt up to and kill; and, when the time of hunting approaches, he turns out badgers or young foxes, taking out some of the steadiest old hounds to lead them on—this teaches them to hunt. He draws small covers and furze brakes with them, to use them to a halloo, and teach them obedience." However, to keep hounds to the game they are intended to hunt, and that game only, is by far the best plan, whenever it is practicable; nor can this observation be too forcibly impressed on the minds of sportsmen. Beckford has a concluding salvo.—He observes—"When they begin to hunt (that is, young hounds) they are first taken into a large cover of my own, which has many ridings cut in it; and young foxes are turned out every year on purpose for them. *Here* it is they are taught the scent they are to hunt, are encouraged to pursue it, and are stopped from every other. *Here* they are blooded to fox. I must also tell you, that as foxes are plentiful in this cover, the principal earth is not stopped, and the foxes are checked back, or some of them let in, as may best suit the purpose of blooding. After they have been hunted a few days in this manner, they are then sent to distant covers, and more old hounds are added to them: there they continue hunting till they are taken into the pack, which is seldom later than the beginning of September; for by that time they will have learned what is required of them, and they seldom give much trouble afterwards. In September I begin to hunt in earnest, and after the old hounds have killed a few foxes, the young hounds are put into the pack, two or three couple at a time, till all have hunted. They are then divided; and as I seldom have occasion to take in more than nine or ten couple,

one half are taken out one day, and the other half the next, till all are steady.

"Two other methods of entering young hounds I have occasionally practised, as the number of hounds have required: for instance, when that number is very considerable, I make a large draft of my steadiest hounds, which are kept with the young hounds in a separate kennel, and are hunted with them all the fore part of the season. This, when the old hounds begin to hunt, makes two distinct packs, and is always attended with great trouble and inconvenience. Nothing hurts a pack so much as to enter many young hounds, since it must weaken it considerably by robbing it of those which are the most steady; and yet young hounds can do nothing without their assistance. Such, therefore, as constantly enter their young hounds in this manner, will, sometimes at least, have two indifferent packs, instead of one good one.

"In the other method, the young hounds are well awed from sheep, but never stooped to a scent till they are taken out with the pack; they are then taken out a few only at a time; and if your pack is perfectly steady and well manned, may not give you much trouble. The method I first mentioned, which is the one I most commonly practise, will be necessary when you have many young hounds to enter; when you have only a few, the last will be most convenient."

There is more circumspection necessary in the education of young hounds than may at first sight be imagined. For instance, one halloo of encouragement to a wrong scent causes endless mischief, or, in other words, undoes all that has been previously accomplished.

The day that it is intended to turn down a fox before young hounds, it will be as well to send them among deer or hares, or both. A little rating and flogging, before they are encouraged, is of the greatest service, as it teaches them what they ought, and what they ought not, to do. Though bag foxes may be turned down before young hounds, they should not be shook before old dogs.

The day after young hounds have had blood is a proper time to send them where there is riot, and to chastise them if they deserve it:—it is always best to correct them, when they cannot help knowing what they are corrected for. When hounds are sent out for this purpose, the later they go the better, as the worse the scent is, the less inclinable will they be to

run it, and of course will give less trouble in stopping them. It has been already observed, that to flog hounds in the kennel is a very injudicious, and consequently a very censurable, plan; but if many hounds are obstinately riotous, a living hare might be put into the kennel to them; they should be flogged as often as they approach her; they will then have some notion for what they are beaten; but no steady hounds should be present on such an occasion. When a hare is put into the kennel, the huntsman and both the whippers-in should be present; and the whippers-in should flog every hound, calling him by his name, and rating him as often as he goes near the hare; and upon this occasion they cannot cut them too hard, or rate them too much; when they think they have chastised them enough, the hare should then be taken away, the huntsman should halloo off his hounds, and the whippers-in should rate them to him. If any love hare more than the rest, a dead hare may be tied round his neck, flogging and rating him at the same time.

Young hounds should be hunted in the large covers; it will tire them out; a necessary step towards making them steady; moreover, it will open the cover against the time hunting is commenced in earnest; and by disturbing the large covers early in the season, foxes will be shy of them, and shew better chases: besides, as they are not likely to break from thence, no injury will be done to the cover, even should it not be yet cut.

Should hounds be very riotous, and require stopping very often from hare, it will be advisable to try on, however late in the day, till a fox is found, as the giving them encouragement should, at such a time, prevail over every other consideration.

Though all young hounds are given to riot, yet the better they are bred, the less trouble they will give. Such, however, as are very riotous, should have little rest; they should be hunted one day in large covers where foxes are in plenty; the next day they should be walked out amongst hares and deer, and stopped from riot; the day following, be hunted again as before.—“Old hounds (says Beckford) that I have had from other packs (particularly such as have been entered at hare) I have sometimes found incorrigible; but I never yet knew a young hound so riotous, but, by this management, he soon became steady.”

When hounds are rated, and do not attend to the rate, they should be coupled up immediately, and be made to know the whipper-in;—and in all probability this method will save any further trouble.

Some are of opinion that martens are very proper objects at which to enter young hounds; and that the marten, being a small animal, by running the thickets breaks it can find, teaches hounds to run cover, and is therefore of the greatest utility.

In summer, hounds may hunt in an evening. Scent generally lies well at the close of the day; yet there is an objection to hunting at that time; animals are then more easily disturbed, and consequently there will be a greater variety of scents than at an earlier hour.

In regard to the hour of going out in a morning, we are informed that the sportsmen of the old school used to be at the side of the cover by break of day, and this is mentioned in a tone of triumph, accompanied with an affectation of contempt for the custom of modern sportsmen; there are other matters, still more ridiculous, upon which those who pretend to admire the customs of yore, speak with rapture. The hour most favourable for finding is no doubt an early one, but it by no means follows that it is equally as good for pursuing the chase as a later period of the day; on the contrary, when in the early part of the morning, there is a sharp frost, the state of the atmosphere is not so favourable for scent, and consequently to the running of the dogs, as when, an hour or two afterwards, the day has become fine, and the ground much better calculated for hunting. If the hour of meeting be not later than ten o'clock, there can be no reason to complain.

On this subject, Beckford seems not to have written with his usual acuteness and penetration.—He says, “At an early hour, you are seldom long before you find.” This is true enough. But he continues—“*The morning is the time of the day which generally affords the best scent.*” This is an error, as the reasons already given sufficiently prove. In fact, Beckford, from observing that foxes were more readily found early in the morning, has hastily concluded that it “affords the best scent;” whereas, the reason of the fox being more easily found is because the hounds thus come on the *drag* in a very short time after the fox has passed to his kennel—and hence has no doubt

arisen Beckford's erroneous notion. He proceeds, "the animal himself which we are more than ever, in such case, desirous of killing (Beckford is here supposing hounds are in want of blood), is then least able to run away from you. The want of rest, and perhaps a full belly, give hounds a great advantage over him.—I expect, my friend, that you will reply to this, 'that a fox hunter then is not a *fair sportsman*.' He certainly is not; and what is more, would be very sorry to be mistaken for one. He is otherwise from principle. In his opinion, a fair sportsman and a foolish sportsman, are synonymous; he, therefore, takes every advantage of the fox he can. You will ask, perhaps, if he does not sometimes spoil his own sport by this? It is true, he sometimes does, but then he *makes* his hounds; the whole art of fox hunting being to keep the hounds well in blood. Sport is but a secondary consideration with a true fox hunter. The first thing is, *the killing of the fox*—hence arises the eagerness of pursuit, and the chief pleasure of the chase. I confess I esteem blood so necessary to a pack of fox hounds, that, with regard to myself, I always return home better pleased with an indifferent chase and death at the end of it, than with the best chase possible, if it ends with the loss of the fox. Good chases, generally speaking, are long chases; and, if not attended with success, never fail to do more harm to the hounds than good. Our pleasures, I believe, for the most part, are greater during the expectation than the enjoyment. In this case, reality itself warrants the idea, and your present success is almost a sure forerunner of future sport."

Hounds should always draw up the wind, and the sportsmen should remain quiet, unless indeed the covers are small, or such as a fox cannot break away from unseen, in which case noise can do no harm. If it be late in the day when the cover is drawn, and there is no drag, then the more the cover is disturbed the better—a fox is thus more likely to be found. Late in the season, foxes generally are wild, particularly in covers that are often hunted. If the cover be not drawn quietly, the fox will sometimes get off a long way before:—when any suspicion of this is entertained, a whipper-in should be sent on to the opposite side of the cover before the hounds are thrown in.

In regard to sportsmen, Beckford thus expresses himself in writing to his friend:

—"You think I am too severe on my brother sportsmen. If I am more so than they deserve, I am sorry for it. I know many gentlemen, who are excellent sportsmen; yet, I am sorry to say the greater number of those who ride after hounds are not; and it is to those only that I allude. Few gentlemen will take any pains—few of them will stop a hound, though he should run riot close beside them, or will place themselves for a moment, though it be to halloo a fox; it is true, they will not fail to halloo, if he comes in their way, and they will do the same to as many foxes as they see.—Some will encourage hounds which they do not know; it is a great fault: were every gentleman who follows hounds to fancy himself a huntsman, what noise, what confusion would ensue! I consider many of them as gentlemen riding out, and I am never so well pleased as when I see them riding home again. You may perhaps have thought that I wished them all to be huntsmen.—Most certainly not; but the more assistance the huntsman has, the better in all probability the hounds will be. Good sense and a little observation will soon prevent such people from doing amiss; and I hold it as an almost invariable rule in hunting, that those who do not know how to do good, are always liable to do harm: there is scarce an instant during the whole chase, when a sportsman ought not to be in one particular place; and I will venture to say, if he is not there, he might as well be in bed."

There are two things in regard to hounds which should be particularly attended to—the one is, to make them steady, the other to make them all draw. Many huntsmen are fond of having them at their horse's heels; but they can never get so well, or so soon, together, as when they spread the cover; besides, it has often happened where there have only been a few finders, that they have found their fox, gone down the wind, and been no more heard of that day. Hence, also, a good reason why hounds should draw up the wind; and on this subject it may be further observed, that when hounds draw up wind, the fox does not hear them approach; and the hounds are thus never out of hearing; besides, if the fox turns down the wind, as most probably he will, it lets all the hounds in.

There is infinite pleasure in hearing a fox well found. When the hounds get up to his kennel with a good drag, the chorus increasing as they go, it inspires an

extasy more easy to feel than describe ; and Beckford says one fox found in this lively manner is worth the best hare chase that was ever run.

Much depends on the first finding of the fox, since a fox well found may be considered as half killed. But people in general are apt to be in too great a hurry on this occasion. There is an enthusiasm attending this diversion which in this instance in particular ought to be restrained. The hounds are always mad enough when they find their fox ; if the men also are mad, it becomes mad work indeed. The following anecdote is related of a gentleman who well knew the bad consequences of what has just been mentioned. When the fox was found, he began by taking a pinch of snuff, he then sung part of an old song—" *Some say care killed the cat,*" &c. By this time, his hounds were got well together, and settled to the scent. He then hallooed and rode as if the devil drove.—However, the writer cannot help thinking, that should any person attempt the practice of this system with many of the modern packs, he would have some difficulty in afterwards reaching them—he might think himself singularly fortunate if he saw them again.

The huntsman should set off with the leading hounds ; and he should keep as close to them afterwards as he conveniently can ; nor can any harm arise from it, unless he has not common sense. No hounds can slip down the wind and get out of his hearing ; he will also see how far they carry the scent ; a necessary knowledge, for without it, he can never make a cast with any degree of certainty.

The huntsman should also be active in pressing the hounds forward when the scent is good ; as well as prudent in not hurrying them beyond it when it is bad. A huntsman should of course be a good horseman ; if he is not, he cannot possibly be of much use ; since one of his leading qualifications should be to ride well up to his head hounds. It is his business to be ready at all times to lend them that assistance they so frequently stand in need of, and which, when they are first at a fault, is then most critical. A fox-hound, at that time, will exert himself most ; he afterwards cools, and becomes more indifferent about his game. Those huntsmen who do not get forward enough to take advantage of this eagerness and impetuosity, and direct it properly, seldom know enough of hunting to be of much use to them afterwards.

It is sometimes more difficult to keep the whipper-in back than to get the huntsman forward. It is however necessary ; nor will a good whipper-in leave the cover while a single hound remains in it ; for this reason there should be two, one of which should be always forward with the huntsman. There are many ills that may happen to hounds that are left behind ; and the surest way of keeping them steady is keeping them together. When left to themselves, they seldom refuse any blood they can get ; they acquire many bad habits ; they become conceited, a great fault in any animal ; and they learn to tye upon the scent—an unpardonable fault in a fox-hound ; besides which, they frequently get a trick of hunting by themselves, and are seldom worth much afterwards. The lying out in the cold, perhaps, the whole night can do no good to their constitutions ; nor will the being worried by sheep-dogs or mastiffs be of service to their bodies : all this, however, and much more, they are liable to.

Every country is soon known, and nine foxes out of ten, with the wind in the same quarter, will follow the same track. It is easy therefore for the whipper-in to cut short, and catch the hounds again.

With a high scent, hounds cannot be pushed on too much.—Halloos keep the fox forward, at the same time that they keep the hounds together, or let in the tail hounds ; they also enliven the sport ; and, if discreetly given, are always of service ; but in cover they should be used with the greatest caution.

Most fox hunters wish to see their hounds run in a good style. They should, as much as possible, as already observed, run abreast ; nothing can be more unpleasant than to see a string of them, or to see them creep where they can leap. It is the dash of the fox-hound which distinguishes him. A pack of harriers, if they have time, will kill a fox ; but they cannot kill him in the style in which he ought to be killed—they must hunt him down. Beckford remarks that the duration of a chase should not be less than one hour, nor more than two ; it is sufficiently long, if properly followed ; many of the modern chases, however, are over in a much shorter time, owing to the uncommon speed of the hounds.

Hounds should not be kept too long ; after five or six seasons they generally do more harm than good : if they tye upon the scent, and come hunting after, they

should immediately be destroyed, let their age be what it may : there is no getting such hounds forward ; they will never come to a halloo, (which every hound that is off the scent, or behind the rest, should not fail to do) and are always more liable to draw you back than to help you forward.

Changing from the hunted fox to a fresh one, is one of the worst accidents that can happen to a pack of fox-hounds ; and it requires all the observation and all the ingenuity that man is capable of to guard against it. Shaw, the favourite huntsman of the Duke of Rutland, and now living, I believe, though retired, occasionally displayed much acuteness and sagacity in this respect. The writer recollects this man once persisting in this respect against the voice of the united field, and he persisted successfully. The Duke of Rutland's hounds ran the fox into a small cover at the edge of the Vale of Belvoir : a fox was tallyhoed on the other side of the cover by a countryman, and the hounds immediately got to the place, and were running :—Shaw, however, stopped them, insisting that the hunted fox was still in the cover ; and he took his hounds back, contrary to all remonstrance and to the general opinion : but he was right ; he recovered the original chase and killed him.

Could a fox-hound distinguish the hunted fox as the deer-hound does the deer that is blown, fox-hunting would then be perfect ; this, at least, is the position of Beckford ; but it requires elucidation :—Deer-hounds, to distinguish the blown deer from the herd, must be bred very near the old talbot or blood-hound, since it is by exquisite olfactory organs that this nice distinction can be made. Such stag hounds as were used by the Earl of Derby are unable to do this—they are not bred sufficiently near the talbot for this purpose ; and, most probably, if fox-hounds possessed the requisite breeding, the hunted fox might be as easily distinguished as the blown deer.

There are certain rules that ought to be observed by a huntsman : he should always listen to his hounds whilst they are running in cover ; he should be particularly attentive to the head hounds, and he should be constantly on his guard against a skirter ; for, if there are two scents, he must be wrong.—Generally speaking, the best scent is least likely to be that of the hunted fox ; and as a fox seldom suffers hounds to run up to him, as long as he is

able to prevent it, so, nine times out of ten, when foxes are hallooed early in the day, they are all fresh foxes. The hounds most likely to be right are the hard-running, line-hunting hounds ; or such as the huntsman knows had the lead before there arose any doubt of changing.

With regard to the fox, if he breaks over an open country, it is no sign that he is hard run ; for they seldom, at any time, will do that, unless they are a great way before the hounds. Also, if he runs up the wind,—foxes seldom do that when they have been long hunted and grow weak ; and when they run their foil, *that* also may direct the huntsman. All this requires a good ear and nice observation, and, indeed, in these consist the chief excellence of a huntsman.

When hounds divide, and are in two parts, the whipper-in, in stopping, must attend to the huntsman, and wait his halloo, before he attempts to stop either ; lest, for want of proper management in this particular, the hounds should be stopped at both places, and both foxes lost by it. If they have many scents, and it is quite uncertain which is the hunted fox, let him stop those that are farthest down the wind, as they can hear the others, and will reach them soonest : in such a case, there will be but little use in stopping those that are up the wind.

When hounds come to a check, every one should be silent. Whippers-in are frequently at this time coming on with the tail hounds. They should never halloo to them when hounds are at fault : the least thing does hurt at such a time, but a halloo more than any other. The huntsman, at a check, had better let his hounds alone, or content himself with holding them forward, without taking them off their noses. Hounds that are not used to be cast, will of themselves acquire a better cast than it is in the power of any huntsman to give them ; will spread more and try better for the scent ; and, if they are in health and spirits, they will want no encouragement.

If they are at fault, and have made their own cast, which the huntsman should always encourage them to do, it is then his business to assist them further ; but, except in some particular instances, they should never be cast as long as they are inclined to hunt. The first cast of a huntsman should be a regular one : if that does not succeed, he should be at liberty to follow his own opinion, and proceed as observation and genius may direct.

When a knowing cast is made, there ought to be some mark of good sense or meaning in it—whether down the wind, or towards some likely cover or strong earth: however, as it is at best uncertain, and as the huntsman and the fox may be of different opinions, a regular cast should always be made before a knowing one is attempted; which, as a last resource, should not be called forth till it is wanted. The letting hounds alone is but a negative goodness in a huntsman; whereas it is true that this last gives him an opportunity of displaying genius, if he happen to possess so rare and valuable a qualification. There is one fault, however, which a knowing huntsman is apt to commit—he will find a fresh fox, and then claim the merit of having recovered the hunted one.

It is always dangerous to throw hounds into a cover to retrieve a lost scent; and, unless they hit him in, is not to be depended on. Driven to the last extremity, should a knowing cast not succeed, the huntsman is no way blamable.

When hounds are at fault, gentlemen are apt to contribute to their remaining so. They should always stop their horses some distance behind the hounds; and, if it is possible to be silent, this is the time to be so: they should be careful not to ride before the hounds or over the scent; nor should they ever meet a hound in the face unless with a design to stop him. Should a sportsman, at any time, happen to get before the hounds, he should turn his horse's head the way they are going, get out of their way, and let them pass.

When the weather is dry, foxes will run the roads, particularly in heathy countries. If gentlemen, at such a time, ride close upon the hounds, they may drive them miles without any scent. High mettled fox-hounds are seldom inclined to stop whilst horses are close at the heels of them.

It has been said of a good sportsman, but a very warm one, that when he saw any of the company pressing too close upon his hounds, he began calling out—Hold hard!—If any one, after that, persisted, he began moderately, at first, by saying, "I beg, Sir, you will stop your horse:—Pray, Sir, stop:—God bless you, Sir, stop:—God d—n your blood, Sir, stop your horse!"

The first moment that hounds are at fault is a critical one for the sport: sportsmen should then be very attentive. Those who look forward perhaps may see the

fox; or, the running of sheep, or the pursuit of crows may give them some tidings of him. Those who listen may sometimes take a hint which way he is gone from the chattering of a magpie, or perhaps be at a certainty from a distant halloo: nothing that gives any intelligence at such a time as this should be neglected.—Gentlemen are too apt to ride all together: were they to spread more, they might sometimes be of service; particularly such, as from a knowledge of the sport, keep down the wind; it would then be difficult for either hounds or fox to escape their observation.

The huntsman should be very cautious how he goes to a halloo. The halloo must, in a great measure, direct him; and, though it afford no certain rule, yet something like an opinion may be formed, whether it is to be depended on, or not. At sowing time, when boys are scaring birds, a huntsman may sometimes be deceived by their halloo if he be not very much on his guard. When any doubt is entertained, it is most advisable to send a whipper-in to ascertain the real state of the case, as the worst then that can happen is the loss of a little time; whereas, if the huntsman gallop away with the hounds to the halloo, and is obliged to return, it is a chance if the hounds will try for the scent afterwards; on the other hand, if the halloo is to be depended on, the sooner the hounds get to it the better. Huntsmen who are slow of getting to a halloo are void of common sense. They frequently commit another great fault, by being in too great a hurry when they get there. It is hardly credible how much our eagerness is apt at such a time to mislead our judgment; for instance, when we get to the halloo, the first questions are natural enough—Have you seen the fox?—which way did he go?—The man points with his finger perhaps, and then away you all ride as fast as possible; and in such a hurry that not one will stay to hear the answer which you were all so desirous of knowing; the general consequence of which is, you mistake the place, and are obliged to return to the man for better information. The less hurry on such occasions, however, the better; and wherever the fox was seen for a certainty, whether near or distant, that will not only be the surest, but also the best, place to take the scent.

The idea that a fox never stops is a very necessary one for a fox hunter, that he may be active, and lose no time; yet tired

foxes will stop if you can hold them on; and they have been known to stop even in wheel ruts on the open down, and leap up in the midst of the hounds. A tired fox ought not to be given up; for he is killed sometimes very unexpectedly. If hounds have ever pressed him, he is worth your trouble; perseverance may recover him, and, if recovered, he most probably will be killed; nor should you despair while any scent remains. The business of a huntsman is only difficult when the scent dies quite away; and it is then he may shew *his* judgment, when the hounds are no longer able to shew *their's*. The recovering a lost scent, and getting near to a fox by a long cast, requires genius, for which huntsmen in general are not remarkable. When hounds are no longer capable of feeling the scent, it all rests with the huntsman; either the game is entirely given up, or is only to be recovered by him.

When hounds are at cold hunting, with a bad scent, it is a good time to send a whipper-in forward; if he can see the fox, a little mobbing at such a time as this may reasonably be allowed.

If hounds come to a check on the high road by the fox being headed back, if in that particular case, you suffer them to try back, it gives them the best chance of hitting off the scent again, as they may try both sides at once.

When hounds are running in cover, you cannot be too quiet. If the fox be running short, and the hounds are killing him, not a word should then be said: it is a difficult time for hounds to hunt him, as he is continually turning, and will sometimes lie down and let them pass him.

The greatest danger perhaps of losing a fox is at the first finding him, and when he is sinking; at both of which times he frequently will run short, and the eagerness of the hounds is too apt to carry them beyond the scent. When a fox is first found, every one should keep behind the hounds till they are well settled to the scent; and when they are killing him, every one should be as silent as possible.

"When he is caught, (says Beckford) I like to see hounds eat him eagerly. In some countries, I am told, they have a method of *treeing* him: it is of use to make the hounds eager; it lets them all in; they recover their wind, and eat him more readily." He should not, however, be kept too long, as the hounds will perhaps manifest no inclination to eat him

longer than while they are angry with him.

When a fox is hallooed, those who understand the business may get forward, and halloo him again; yet, let it be understood, if the hounds go the contrary way, or do not seem to come on upon the line of him, they should halloo no more. With regard to its being the hunted fox, the fox which every man halloos is the hunted fox in his own opinion, though he seldom has a better reason for it than because *he* saw him. Such halloos as serve to keep the hounds together, and get on the tail hounds, are always of use: it is the halloos of encouragement to the leading hounds, when injudiciously given, that is very apt to spoil the sport. View halloos frequently do more harm than good. They are pleasing to sportsmen, but prejudicial to hounds. If a strong cover be full of foxes, and they are often hallooed, hounds seldom take much pains in hunting them—hence arises that coldness and indifference which sometimes may be perceived in hounds whilst pursuing their game.

Hounds should never be taken off to a halloo when they are running with a good scent; but if otherwise, and the halloo can be depended on—for instance, when the fox is a great way before them, or persists in running his foil, such a step may be advisable; for such foxes are difficult to kill unless you get nearer them by some means or other.—When you hunt often thus, it frequently happens, that the longer you run, the further you are behind.

When hounds are out of blood, and a fox runs his foil, you need not scruple to stop the tail hounds and throw them in at head; or, if the cover has any ridings in it, and the fox be often seen, the huntsman, by keeping some hounds at his horse's heels, at the first halloo that he hears may throw them in close at him. This will put the fox out of his pace, and perhaps put him off his foil.—It will be necessary, when this is done, that the whipper-in should stop the pack from hunting after him, and get forward with them to the huntsman.

Hounds may be hallooed too much, as already observed. If they are often used to a halloo, they will expect it, and may perhaps trust to their ears and eyes more than to their noses. If they are often taken from the scent, it teaches them to shuffle, and will probably make them slack in cover: it should be done, therefore, with

great caution—not too often, and always should be well timed. Whilst hounds can get on with the scent, it cannot be right to take them off from it; but when they are stopped for want of it, it cannot then be wrong to give them every possible advantage.

Hounds should not be suffered to hunt after others that are gone on with the scent, as they are never likely to reach them with a worse scent; besides it induces them to tye on the scent, hunt dog, and destroys that laudable ambition of getting forward which is the chief excellence of the fox-hound.

A good huntsman will seldom suffer his hounds to run away from him; if it should so happen, and they are still within his hearing, he sinks the wind with the rest of the pack, and gets to them as fast as he can. When a single hound is gone on with the scent, a whipper-in should be sent forward to stop him; were the hounds to be taken off the scent to get to him, and he should no longer have any scent when they reach him, the fox would, in all probability, be lost by it. This is a reason why in large covers, and particularly such as have many roads in them, skirting hounds should be left at home on windy days.

Skirting is a bad quality in men as well as in dogs. Such as skirt to save themselves or their horses, often head the fox. Good sportsmen never quit hounds but to be of service to them: with men of this description, skirting becomes a necessary part of fox hunting and is of the greatest use. "Skirters! beware of a furze brake (exclaims the author from whom we have so often quoted); if you head back the fox, the hounds most probably will kill him in the brake. Such as ride *after* hounds, at the same time that they do no good, are the least likely to do harm:—let such only as understand the business, and mean to be of service to the hounds, ride wide of them. I cannot, however, allow that the riding close up to the hounds, is always the sign of a good sportsman; if it were, a monkey on horseback would be the best sportsman. Here must I censure (but with respect) that eager spirit which frequently interrupts, and sometimes is fatal to, sport in fox hunting; for, though I cannot subscribe to the doctrine of my friend—'that a pack of fox-hounds would do better without a huntsman than with one; and that if left to themselves they would never lose a fox;' yet, if allowing them their usual

attendants, he had objected only to the sportsmen who follow them, I must have joined issue with him. Whoever has followed hounds has seen them frequently hurried beyond the scent; and whoever is conversant in hunting must know, that the steam of many horses, carried by the wind, and mixed with a cold scent, is prejudicial to it."

It sometimes happens that a good horseman is not so well in with the hounds, as an indifferent one, because he will not condescend to get off his horse. The best way to follow hounds across a country is to keep on the line of them (says Beckford) and "to dismount at once, when you come to a leap you do not wish to take; for, in looking about for easier places much time is lost." What would the Meltonians say to this?—they would object to that part, no doubt, which advises the sportsman to dismount.

In following hounds, it may be useful to know, that, when in cover they run up the wind, you cannot in reason be too far behind them, as long as you have a perfect hearing of them, and can command them; and, on the contrary, when they are running down the wind, you cannot keep too close to them.

When covers are much disturbed, foxes will sometimes break away as soon as they hear a hound. Where the country round is very open, the fox least likely to break is the one which you are hunting; *he* will be very unwilling to quit the cover, if it be a large one, unless he can get a great distance before the hounds. If sportsmen are desirous of a run over such a country, the likeliest means will be to post a quiet and skilful person to halloo one off, and lay on to him. The further he is before the hounds, the less likely he will be to return. The best method, however, of hunting a cover like this, which is full of foxes, is to stick constantly to it, not suffering the hounds to break so long as one fox remains:—if this be done two or three hunting days in succession, foxes will then fly, and good runs may be obtained.

Frequently changing the country is prejudicial to hounds: should they change from a good scenting country to a bad one, they will be some time before they kill a fox, unless they have better luck than ordinary; whereas, hounds have always a great advantage in a country which they are used to. They not only know better where to find their game, but they will pursue it with more energy when they have found it.

A good whipper-in, according to Bedford, is not less essential to a pack of fox-hounds, than a good adjutant is to a regiment. And speaking of the huntsman, he says, that he is not very ambitious to have a *famous* huntsman "unless it necessarily followed that he must have *famous hounds* ; a conclusion I cannot admit, so long as these, so famous gentlemen, will be continually attempting to do themselves, what it would be much better if they would permit their hounds to do : besides, they seldom are good servants, are always conceited, and sometimes impertinent. I am very well satisfied if my huntsman knows his country, knows his hounds, and rides well up to them, and has some knowledge of the nature of the animal he is in pursuit of ; and so far am I from wishing him to be *famous*, that I hope he will continue to think that his hounds know best how to hunt a fox."

He continues—"You say you agree with me, that a huntsman should stick close to his hounds. If then his place is fixed, and that of the first whipper-in is not, I cannot help but think genius may be at least as useful in one as in the other : for instance, while the huntsman is riding to his head hounds, the whipper-in, if he has genius, may shew it in various ways : he may clap forward to any great earth that may by chance be open ; he may sink the wind to halloo or mob a fox, when the scent fails ; he may keep him off his foil ; he may stop the tail hounds and get them forward ; and has it frequently in his power to assist the hounds, without doing them any hurt, provided he has sense to distinguish where he is wanted most. Besides, the most essential part of fox hunting, the making and keeping the pack steady, depends entirely upon him : as a huntsman should seldom rate, and never flog, a hound. In short, I consider the first whipper-in as a second huntsman ; and, to be perfect, he should be as capable of hunting the hounds as the huntsman himself."

A whipper-in should always get to the head of his hounds before he attempts to stop them. The rating behind is to little purpose ; and, if they are in cover, may prevent him from knowing who the culprits are. When hounds are running a fox, he should content himself with stopping such as are riotous, and should get them forward. They may be condemned upon the spot, but the punishment deferred till the next day, when they may be

taken out on purpose to commit the fault, and suffer the punishment.

Young hounds cannot be awed too much ; yet their punishment should not exceed the measure of their offence—a line should be drawn between justice and barbarity.

A whipper-in, while breaking young hounds, will sometimes rate them before they commit the fault : this prevents them for that time ; but they will be just as ready to begin the next opportunity. He should let them alone, till he perceives what they would be at ; and the discipline then should be proportioned to the offence, as already observed.

Whether a riotous young hound runs little or much, it is of small consequence, if he be not encouraged : it is the blood only that signifies, which in every kind of riot should be carefully prevented.

Whippers-in are too apt to continue rating, even when they find rating does not avail. There is but one way to stop such hounds, which is, to get to the heads of them. When a whipper-in rates a hound, and the hound does not mind him, he should, if possible, immediately take up such hound, and give him a severe flogging. But a hound should never be struck, unless he is conscious, at the same time, what it is for : when he is struck, the blow should be sharply inflicted.

If any hounds happen to be more riotous than the rest, in this case it may perhaps be allowable to give them a few cuts as they are about to leave the kennel.

When hounds are unsteady, every possible means should be adopted to make them otherwise. A hare, or a deer, put into the kennel amongst them may then be necessary.

Such hounds as are notorious offenders should also feel the lash and hear a rate, as they go to the cover ; it may be a useful hint to them, and may prevent a severe flogging afterwards. A sensible whipper-in will wait his opportunity to single out his hound :—he will then hit him hard, and rate him well ; whilst a foolish one will often abuse a dog he did not intend to hit ; will ride full gallop into the midst of the hounds ; will perhaps ride over some of the best of them, and put the whole pack into confusion.

Have a care ! are words which seldom do any harm ; as hounds when they are on the right scent, will not mind them. But a whipper-in should be careful how he *encourages* the hounds ; which, im-

properly done, may very much injure the whole pack.

Some whippers-in will rate a hound, and then endeavour to flog him. A dog, after having been rated, will naturally avoid the whip. He should strike first, and rate afterwards.

"You will find it difficult (observes the intelligent Beckford) to keep your people in their proper places; I have been obliged to stop back myself to bring on hounds, which my servants had left behind. I cannot give you a greater proof how necessary it is that a whipper-in should bring home all his hounds, than by telling you that I have lost an old hound for ten days, and sent all the country over to inquire after him; and, at last, when I thought no more about him, in drawing a large cover in the country where he had been lost, he joined the pack: he was exceedingly emaciated, and it was a long time before he was recovered. How he subsisted all that time, I cannot imagine. When any of your hounds are missing, you should send the whipper-in back immediately to look for them—it will teach him to keep them more together."

A good whipper-in is of the greatest use in getting forward the tail hounds, which is a necessary part of fox hunting. He should also get forward himself at times, when the huntsman is not with the hounds; but the second whipper-in (who frequently is a young lad, ignorant of his business) on no account ought to encourage or rate a hound, but when he is quite certain it is right to do it; nor is he ever to get forward as long as a single hound remains behind.

Halloo forward is used too indiscriminately, and is for ever in the mouth of a whipper-in. If hounds are never used to that halloo till after a fox is found, they will fly to it. At other times, other halloos will answer the purpose of getting them on as well.

It frequently happens that the huntsman is jealous of the whipper-in: He looks on the whipper-in as a successor, and therefore does not very readily admit him into the kennel; yet, it is necessary he should go there; for he ought to be well acquainted with the hounds, who should know and follow him as well as the huntsman.

It is a great pleasure, when a hound challenges, to be certain he is right; it is a cruel disappointment to hear a rate immediately succeed to it, and the smacking of whips, instead of halloos of encourage-

ment. A few riotous and determined hounds will create much mischief in a pack. They should be taken out by themselves and severely chastised; and if they prove incorrigible, they should be consigned to the halter. The common saying, *evil communications corrupt good manners*, holds good with regard to hounds—they are easily corrupted. Separating riotous hounds from those that are steady, answers many good purposes. It not only prevents the latter from getting the blood they should not, but also prevents them from being overawed by the smacking of whips, which is too apt to obstruct drawing and going deep into cover.

"A couple of hounds, which I received from a neighbour last year (says Beckford) were hurtful to my pack. They had run with a pack of harriers; and, as I soon found, were never afterwards to be broken from hares. It was the beginning of the season, covers were thick, hares were plenty, and we seldom killed less than five or six in a morning. The pack at last got so much blood, that they would hunt them, as if they were designed to hunt nothing else. I parted with the two hounds; and the others, by proper management, are become as steady as they were before. You will remind me, perhaps, that they were draft hounds. It is true, they were so; but they were three or four years hunters; an age when they might be supposed to have known better. I advise you, unless a known good pack of hounds are to be disposed of, not to accept of old hounds. I mention this to encourage the breeding of hounds, and as the likeliest means of getting a handsome, good, and steady pack: though I give you this advice, I have accepted draft hounds myself, and some have been very good: but they were the gift of the friend mentioned by me in a former letter; and, unless you meet with such another, old hounds will not prove worthy of your acceptance: they never can be very good; and may bring vices along with them, to spoil your pack. If old hounds are unsteady, it may not be in your power to make them otherwise; and I can assure you from experience, that an unsteady old hound will give you more trouble than all your young ones. The latter will at least stop; but an obstinate old hound will frequently run mute, if he finds he can run no other way; besides, old hounds, that are unacquainted with your people, will not readily hunt for them as they ought; and such as were

steady in their own pack may become unsteady in yours. I once saw an extraordinary instance of this, when I kept harriers. Hunting one day on the Downs, a well known fox hound of a neighbouring gentleman came and joined in, and he both ran faster than we did, and skirted more, he broke every fault, and killed many hares. I saw this hound often in his own pack afterwards, where he was perfectly steady; and, though he constantly hunted in covers, where hares were in great plenty, I never remember to have seen him run one step after them."

It is shocking to hear hounds hallooed one minute and rated the next. Nothing offends a good sportsman so much, or is in itself so hurtful.—Whenever a pack is found to be very unsteady, there is much reason to believe, either that no care has been taken in entering the young hounds to make them steady, or else the men afterwards, by hallooing them on improperly, and to a wrong scent, have forced them to become so.

The first day of the season, it is advisable to take out the pack where there is the least riot, and where there is a tolerable certainty of finding; for, notwithstanding their steadiness at the end of the last season, long rest may have made them otherwise.

Beckford relates a remarkable instance of the steadiness of the hound.—“I must mention (says he) the extraordinary sagacity of a fox beagle, which once belonged to the Duke of Cumberland. I entered him at hare, to which he was immediately so steady that he would run nothing else. When a fox was found by the beagles, which sometimes happened, he would constantly come to the heels of the huntsman's horse; some years afterwards I hunted fox only, and though I parted with most of the others I kept *him*: he went out constantly with the pack; and, as hares were scarce in the country, he did no harm: the moment a fox was found he came to the horse's heels. This continued for some time, till catching view of a fox that was sinking, he ran in with the rest, and was well blooded.—He, from that time to the day of his death, was not only as steady a hound to fox as ever I knew, but became also our very best finder. I bred some buck hounds from him, and they are remarkable for never changing from the hunted deer.”

When hounds go out very late in the day, they should be immediately taken to the place where they are most likely to

find, which, generally speaking, is the cover, which hounds have been the least in. If the cover be large, only such parts of it should be drawn as a fox is likely to kennel in; it is useless to draw any other at a late hour. Besides, though it is always right to find as soon as you can, yet it is never so necessary as when the day is far advanced:—if you do not find soon, a long and tiresome day is generally the consequence. Where the cover is thick, you should draw as exactly as if you were trying for a hare; particularly, if it be furzy; for, when there is no drag, a fox, at a late hour, will lie till the hounds come close upon him.—Having drawn one cover, the huntsman should stay for his hounds, and take them along with him to another; as hounds will sometimes find a fox after the huntsman has left the cover. The whippers-in should not be sparing of their whips or voices on the occasion, and should come through the middle of the cover, to be certain that they leave no hounds behind them.

A huntsman will complain of hounds for staying behind in cover. It is a great fault, and makes the hound that possesses it of little value—a fault frequently occasioned by his own mismanagement. Having drawn one cover, he hurries away to another, and leaves the whippers-in to bring on the hounds after him; but the whipper-in is seldom less desirous of getting forward than the huntsman; and unless they come away easily, it is not often that he gives himself much trouble about them. Also, hounds that are left too long in their walks, will acquire this habit from hunting by themselves, and are not easily broken of it.

Hounds that lie idle are always out of wind, and are easily fatigued. The first day hounds go out after a hard frost much sport cannot be expected; on such occasions, therefore, more than the usual number of hounds should be taken out, and thrown into the largest cover; if any foxes are in the country, it is *there* they will be found.

A huntsman should determine within himself the number of hounds he intends to take out, as well as the number of young hounds that he can venture into the country where he is going to hunt, before he goes into the kennel to draft them. Different countries may require different hounds; some may require more hounds than others:—it is not an easy matter to draft hounds properly; nor can

any expedition be made in it without some method.

When the place of meeting and time are fixed, every huntsman should be as exact to them as possible. If the huntsman, without inconvenience, can begin drawing at the farthest cover down the wind, and so draw from cover to cover up the wind, it will have many advantages attending it: he will draw the same covers in half the time; the people cannot fail of being in their proper places; and there will be less difficulty in getting the hounds off; and as the fox will most likely run the covers that have been already drawn there is little probability of changing.

Huntsmen of penetration will observe where foxes like best to lie. Where there is a great tract of cover to draw, such observations are of great utility, and will save much time. Generally, foxes are partial to such as lie high, and are dry and thick at bottom; such also as lie out of the wind; and such as are on the sunny side of hills. The same cover where one fox has been found, if it has remained quiet any time, will most likely produce another.

It is to little purpose to draw hazel coppices at the time when nuts are gathered; furze covers, or two or three years' coppices, are then the only quiet places a fox can kennel in: they also are disturbed when pheasant shooting begins, and older covers are more likely. The season when foxes are most wild and strong is about Christmas: a huntsman then must lose no time in drawing; he should draw up the wind, unless the cover be very large, in which case, it may be better, perhaps, to cross it, giving the hounds a side wind, lest he should be obliged to turn down the wind at last:—in either case, he should draw as quietly as he can.

At this time, young coppices are quite bare: the most likely places, therefore, are four or five years' coppices, and such as are furzy at the bottom.

The best drawing hounds are shy of searching a cover when it is wet; and on such occasions the huntsman should ride into the likeliest part of it; and as there will most likely be no drag, the closer he draws the better:—huntsmen, by drawing in too great a hurry, frequently leave foxes behind them. Some huntsmen draw too quick; some too slow. The time of the day, the behaviour of the hounds, and the covers they are drawing will direct an

intelligent huntsman in the pace which he ought to go.

When a fox is found in a furze brake, he should never be hallooed till he has got quite clear of it;—when a fox is found in such a place, hounds are sure to go off well with him; and it must be owing either to bad scent, bad hounds, bad management, or bad luck, if they fail to kill him afterwards.

It is a common practice to rate as soon as a young hound challenges. No doubt, young hounds are often wrong; yet, since it is not impossible that they may sometimes be right, it would be better to wait a little, in order to ascertain whether any of the old ones will join, before any thing is said.

It is advisable not to hunt the small covers till you have well rattled the large ones; for, until the foxes are thinned and dispersed, where they are in plenty, it must be bad policy to drive others there to increase the number. If it be wished to thin the foxes, the hounds should be thrown into the same cover as long as as there is a fox to be found. If the hounds go off with the first fox that breaks, the cover is very little disturbed, and another fox will probably be found there again the next day; but where foxes are scarce, the same cover should never be drawn two days in succession.

When a fox slinks from his kennel, gets a great way before the hounds, and you are obliged to hunt after him with a bad scent—if you are in a country where foxes are in plenty, and you know where to find another, it will be advisable to call off, and try for a second. Unless a fox can be well pressed in the early part of the run, the hounds will not easily reach him; on the contrary, if he is at such a distance before them, as will enable him to regulate his pace, he will be very likely to tire out both horses and hounds:—hence one very essential reason for speed in the fox hound. When the fox is a great way a-head, he will listen to the hounds, and will act accordingly—if the hounds are not able to blow him, the chase is sure to be very long, and will most likely end with the loss of the fox.

During the time that hounds are drawing for a fox, the sportsmen should place themselves in such a manner that he cannot go off unseen. Foxes will sometimes lie in sheep's scrapes on the side of hills, and in small bushes, and even in stubbles, where huntsmen seldom think of looking for them; yet, when they hear a hound,

they generally shift their quarters, and make for close cover. Gentlemen should take this necessary part of fox hunting on themselves, as the whippers-in have often business to occupy their attention.

Long drags in large covers give a great advantage to a fox, who, in such a case, generally sets off a long way before the hounds. This may be prevented by throwing the hounds in that part of the cover in which he is most likely to kennel: for want of this precaution, a fox will sometimes get so far the start of hounds that they are never able to hunt up to him afterwards. Also, when hounds first touch upon the drag, some huntsmen are so careless, that, while they are going on with it the wrong way themselves, a single hound finds the fox, and is not caught any more by the pack till he has lost him again.

Foxes are said to go down the wind to their kennel; but they do not always observe this rule.

There are some huntsmen, who, while their hounds are at fault, frequently make so much noise themselves that they can hear nothing else: they should always have an ear to a halloo.

When hounds approach a cover which it is intended they should draw, and dash away towards it, whippers-in generally ride after them to stop them. It is too late; they had better let them alone; it checks them in their drawing, and is of no kind of use: it will be soon enough to begin to rate, when they have found and hunt improper game. If a huntsman has his hounds under good command, and is attentive to them, they will not break off without his permission. Should he pass by the side of a cover which he does not intend to draw, his whippers-in must be in their proper places; but if he rides up a cover with them, unawed, uncontrolled—a cover where they have been used to find, they must be slack indeed if they do not dash into it. On this account, it is better not to approach the cover always in the same direction; hounds, by not being aware of what is going forward, will be less likely to break off, and will draw more quietly. Hounds are sometimes seen so flashy, that they will break away from the huntsman as soon as they see a cover; and yet the same hounds will stop, when they reach the cover side, and not go into it. Hounds should be very rigidly disciplined; and when they are not under good command, subject the sportsman to many inconveniences; and

he may at times be obliged to go out of his way, or draw a cover against his will:—it is not possible to do any thing with a pack of fox hounds, unless they are obedient. They should both love and fear the huntsman; they should fear him, but they should love him more. Dogs that are constantly with their masters acquire a wonderful degree of penetration, and much may be done through the medium of their affections.

Young foxes that have been much disturbed will lie at ground: the earth at such time should be stopped three or four hours before day, or no foxes will be found.

The first day a cover is hunted that is full of foxes, and you want blood, let them not be checked back into the cover, which is the usual practise at such times, but let some of them get off: if you do not, what with continual changing, and sometimes running the heel, it is probable none will be killed.

When hounds are encouraged to a scent, if they lose that scent, it is then an unsteady hound is for any kind of mischief.

Though a huntsman ought to be as silent as possible at going into a cover, he cannot be too noisy at coming out of it; and if at any time, he should turn back suddenly, he should give as much notice of it as he can to his hounds, or he will leave many of them behind him; and should he turn down the wind, he may see no more of them.

It is the judicious encouragement of hounds to hunt, when they cannot run; and the preventing them losing time by hunting too much when they might run, that distinguishes a good from a bad huntsman.—Hounds that have been well taught, will cast forward to a hedge of their own accord; but this excellence can never be acquired without discipline and education. To suffer a pack of fox hounds to hunt through a flock of sheep, when it is so easy to make a regular cast round them, is the height of absurdity—it is wilfully losing time to no purpose. It has been asserted that hounds should at no time be taken off their noses; but in answer to this, it may be justly remarked, that a fox hound which will not bear lifting, is not worth keeping.

Recurring to Beckford, he observes—“Though I like to see fox hounds cast wide and forward, and dislike to see them pick a cold scent through flocks of sheep to no purpose, yet I must beg leave to ob-



serve, that I dislike still more to see that unaccountable hurry, which huntsmen will sometimes put themselves into, the moment their hounds are at fault. Time ought always to be allowed them to make their own cast; and if a huntsman is judicious, he will take that opportunity to consider, what part he himself has next to act; but, instead of this, I have seen hounds hurried away the very instant they come to a fault, a wide cast made, and the hounds at last brought back again to the very place from whence they were so abruptly taken, and where, if the huntsman had had a minute's patience, they would have hit off the scent themselves. It is always great impertinence in a huntsman to pretend to make a cast himself before the hounds have made theirs'. Prudence should direct him to encourage, and, I may say, humour his hounds, in the cast they seem inclined to make, and either to stand still or trot round them, as circumstances may require.

"I have seen huntsmen make their cast on bad ground, when they might as easily have made it on good. I have seen them suffer their hounds to try in the midst of a flock of sheep, when there was a hedge near, where they might have been sure to take the scent; and I have seen a cast made with every hound at their horse's heels. When a hound tries for the scent, his nose is to the ground; when a huntsman makes a cast, his eye should be on his hounds; and when he sees them spread wide, and try as they ought, his cast may then be quick.

"When hounds are at fault, and the huntsman halloos them off the line of scent, the whippers-in cracking their whips and rating them after him, if he trots away with them, may they not think the business of the day is over?—Hounds never, in my opinion, (unless in particular cases, or when you go to a halloo) should be taken entirely off their noses; but when lifted, should be made to try as they go. Some huntsmen have a dull, stupid way of speaking to their hounds; at these times little should be said, and that should have both meaning and expression."

When a huntsman makes a cast, he should make it perfect one way before he tries another, as much time might otherwise be lost, in going backwards and forwards. Some huntsmen, when they have made a forward cast, come slowly back again—they should return as fast as they can.

If hounds come to a fault, and it is pro-

bable that the fox has been headed back, your forward cast should be short and quick, as the scent is then likely to be behind you: too obstinate a perseverance forward has been the loss of many foxes. In heathy countries, as we have already observed, if there are many roads, foxes will run them in dry weather; when hounds, therefore, overrun the scent, if the huntsman return to the first cross road, he will probably hit off the scent again.

In large covers, if there are many roads, when those are dry in bad scenting days, or after a thaw, when they carry, the huntsman should be near his hounds to help them, and hold them forward. Foxes will run the roads at these times, and hounds cannot always own the scent.

When hounds are at fault on a dry road, the huntsman should not turn back too soon; he should stop till he has ascertained that the fox has not gone on:—the hounds should try on both sides the road at once; if the huntsman perceive that they have tried on one side only, on his return, he should try the other.

If a fox runs the wind, when first found, and afterwards turns, he seldom turns again.

When a fox is pursued over a country, the scent being bad, and he a long way before the hounds, without ever having been pressed, if his point should be for strong earths that are open, or for large covers, where game is in plenty, it will perhaps be the best plan to take off the hounds at the first fault, as the fox will, under such circumstances, run the hounds out of scent; and indeed, if he should not, you will be very likely to change at the first cover you come into. But when a fox has been hard pressed, he should not, if possible, be given up.

If it be desirous to recover a hunted fox, and there is no longer any scent, a long cast to the first cover to which he seems to point is the only resource in such an emergency—the huntsman should get there as fast as he can, and, when there, the hounds should try as slowly and quietly as possible:—if hunting after him is hopeless, and a long cast does not succeed, it is time to give him up. In fact, when the scent is so bad that the hounds cannot hunt, the best way is, to give up the business for the day.—It is a fault in a huntsman to persevere in bad weather, when hounds cannot run, and when there is not a probability of killing a fox. There are some, however, who, after they have lost one fox for want of scent to hunt him,

will find another—this makes their hounds slack and sometimes vicious, and also disturbs the covers to no purpose.

When a huntsman has a perfect knowledge of his country, he possesses an eminent advantage—he can trot away and make a knowing cast, from having observed that nine foxes out of ten, with the wind in the same quarter, have constantly made for the same point or cover.

In a country, where there are large earths, a fox that knows the country, and tries one of them, seldom fails to try the rest. A huntsman may take advantage of this to get nearer his fox.

When a fox runs into a village, great caution is necessary: if he is halloo'd there, the huntsman should get forward as fast as he can. Foxes, when tired, will lie down any where, and are thus often lost. A wide cast is not the best to recover a tired fox with tired hounds—they should hunt him out, inch by inch, though they are ever so long about it, and for the reason just given, that he will lie down anywhere.

Where foxes are in plenty, a huntsman must take care that his hounds do not run the heel; and it sometimes happens that hounds can run the wrong way of the scent better than they can the right; for instance when one is up the wind, and the other down.

When the huntsman hears a halloo, and has five or six couple of hounds with him, the pack not running, let him get forward with those which he has; when they are on the scent, the others will soon join them.—He may lift his tail hounds and get them forward *after the rest*; it can do no hurt, but he must be cautious not to get them *before the rest*—it is always injurious, and foxes are sometimes lost by it.

Should a fox run his foil in cover, if all the hounds are suffered to hunt on the line of him, they will foil the ground, and tire themselves to little purpose. The huntsman, at such a time, should stop the tail hounds, and throw them in at head. Whilst hounds run straight, it cannot be of any use, as they will get on faster with the scent than they would without it.

When hounds are hunting a cold scent, and point towards a cover, a whipper-in should get forward to the opposite side of it: should the fox break before the hounds reach the cover, they should be stopped and get nearer to him.

If a fox persists in running in a strong

cover, lies down often behind the hounds, and they are slack in hunting him, the huntsman should get into the cover to them. Such a step may induce the fox to break, it may keep him off his foil, or may prevent the hounds from giving him up.

Slow huntsmen kill but few foxes; they are a check upon their hounds, which seldom kill a fox but with a high scent, when it is out of their power to prevent it. A perfect knowledge of the intricacies of hunting is chiefly of use to slow huntsmen and bad hounds, since they more often stand in need of it. Activity is the first requisite in a huntsman to a pack of fox-hounds, a lack of which no judgment can compensate or make amends for; but the most difficult part of a huntsman's business is the distinguishing betwixt different scents, and, knowing with any certainty, the scent of the hunted fox. Much speculation is here required—the length of time hounds remain at fault—difference of ground—change of weather—all which contribute to increase the difficulty, and require a nicety of judgment and a precision, much above the comprehension of most huntsmen.

When hounds are at fault, and cannot make it out themselves, the first cast should be quick—the scent is then good, nor are the hounds likely to go over it; as the scent gets worse, the cast should be slower, and be more cautiously made. This is an essential part of hunting, which few huntsmen attend to sufficiently:—with a good scent, the cast should be *quick*; with a bad scent, *slow*; and when the hounds are picking along a cold scent, *they should not be cast at all*.

If hounds are at fault, and staring about, trusting solely to their eyes and their ears, making a cast with them is not advisable. The likeliest place for them to find the scent is where they left it; and when the fault is evidently in the hounds, a forward cast is not likely to recover the scent.

When hounds are making a good and regular cast, trying for the scent as they go, the huntsman should not say a word to them; it cannot do any good, and may probably make them go over the scent.

If hounds come to a check, the huntsman should observe the tail hounds—they are least likely to overrun the scent, and he may see by them how far they brought it: in most packs there are some hounds that will shew the point of the fox; and if attended to, will direct the huntsman

in his cast. When such hounds follow unwillingly, the huntsman may be certain the pack are running without the scent.

When the huntsman casts his hounds, he ought to manifest some judgment, and not cast wide, without reason, since he will occupy more time about it. Huntsmen in general keep too forward in their casts, or, as a sailor would express it, *keep too long on one tack*. They should endeavour to hit off the scent by crossing the line of it, as two parallel lines can never meet.

When the huntsman goes to a halloo, he should be careful lest his hounds run the heel. "I once saw (says Beckford) this mistake made by a famous huntsman—after we had left the cover, which we had been drawing, a disturbed fox was seen to go into it; he was hallooed and we returned. The huntsman, who never inquired *where* the fox was seen, or on *which side* the cover he entered, threw his hounds in at random; and, as it happened, on the opposite side: they immediately took the heel of him, broke cover, and hunted the scent back to his very kennel."

Different countries require different casts; such huntsmen as have been used to a woodland and inclosed country, are apt to lose time in an open country, where wide casts are always necessary.

When it becomes necessary to cast round a flock of sheep, the whipper-in ought to drive them the other way, lest they should keep running on before.

A fox seldom goes over or under a gate, when he can avoid it.

Conceited huntsmen frequently spoil the sport. "Often have I seen them (says Beckford) when their hounds come to a check, turn directly back, on seeing hounds at head which they had no opinion of. They *supposed* the fox was gone another way: in which case Mr. Bayes's remark in the Rehearsal always occurs to me, '*that, if he should not, what then becomes of their suppose?*'—Better would it be to make a short cast forward first; they then might be *certain* that the hounds were wrong, and of course could make their own cast with greater confidence. The advantage, next to that of knowing where the fox *is* gone, is that of knowing with certainty where he is not.

"Most huntsmen like to have all their hounds turned after them, when they make a cast: I wonder not at them for it, but I am always sorry when I see it done; for, till I find a huntsman that is infallible, I shall continue to think the more my

hounds spread, the better; as long as they are within sight or hearing, it is sufficient. Many a time have I seen an obstinate hound hit off the scent, when an obstinate huntsman, by casting the wrong way, has done all in his power to prevent it. Two foxes I remember to have seen killed in one day by skirting hounds, whilst the huntsman was making his cast the contrary way."

If hounds are running in cover, and come into a road, and horses are on before, the huntsman should hold them quickly on beyond where the horses have been, trying the opposite side as he goes along. Should the horsemen have been long enough there to have headed back the fox, let him then try back.—When the fox has been headed back, the hounds ought to try back, but scarcely in any other case.

When hounds are divided into many parts, you had better go off with the first fox that breaks. The ground will soon get tainted, nor will hounds like a cover where they are often changing.

The heading a fox at first, if the cover be not a large one, is oftentimes of service to hounds, as he will not stop, and cannot go off unseen. When a fox has been hard run, the case may be different; and hounds that would have easily killed him out of cover, have sometimes left him in it.

If a fox has often been headed back on one side of the cover, and the huntsman knows there is not any person on the other to halloo him, the first fault his hounds come to, let him cast that way, lest the fox should be gone off; and if he is in the cover, he may still recover him.

A huntsman should on no account take out a lame hound. If any are tender footed, the huntsman, on being questioned, will generally remark, that they will not mind it when they are out—probably they may not—but how will they be the next day?—A hound not in condition to run, cannot be of much service to the pack, and taking him out at such a time may occasion a long confinement afterwards.

It need hardly be remarked, that a huntsman should not be allowed to hunt young hounds in couples. If necessary, it would be better if they were held in couples by the cover side till the fox is found.

The two principal things to which a huntsman has to attend are the keeping of his hounds *healthy* and *steady*. The

first may be accomplished by cleanliness and proper food; the latter, by putting, as seldom as possible, any unsteady ones amongst them.

When a fox has been lost, the huntsman would do well to examine himself, on his return home, and endeavour to ascertain in what he might have done better: by this means he may make the very losing of a fox of use to him.

Beckford remarks—"Old tying hounds, and a hare hunter turned fox hunter, are both as contrary to the true spirit of fox hunting, as any thing can possibly be. One is continually bringing the pack back again; the other as constantly does his best to prevent them getting forward. The natural prejudices of mankind are such, that a man seldom alters his style of hunting, let him pursue what game he may; besides, it may be constitutional, as he is himself slow or active, dull or lively, patient or impatient; it is for these reasons I object to a hare hunter for a pack of fox hounds, for the same ideas of hunting will most probably stick by him as long as he lives." Yet Beckford himself followed both hare and fox hunting at different periods; and yet little doubt can be entertained that he excelled in both; and although the chase of the fox and that of the hare, offer a striking contrast as to style and character, yet, we are of opinion (and we boast more than ordinary experience) that nothing is more easy than for a hare hunter to become a fox hunter; and he will perhaps become partial to the latter:—fox hunters are apt to entertain a mean opinion of the pursuit of the hare.

There is some variety in huntsmen. Sometimes a good kennel huntsman is met with; sometimes an active and judicious one in the field; and perhaps it is too much to expect these admirable qualities in the same person; it is certain they are seldom united in an eminent degree. Some are clever at finding a fox; others are better after he is found; whilst perfection in a huntsman, like perfection in any thing else, is scarcely ever to be met with: there are not only good, bad, and indifferent huntsmen; but there are perhaps a few others, who, being, as it were, of a different species, should be classed apart—we mean such as have real genius. Beckford says he would rather his first whipper-in possessed genius than his huntsman; and "one reason amongst others is, that he would have more opportunities of exercising it."

"The keeping hounds clean and healthy, and bringing them into the field in their fullest vigour, is the excellence of a good kennel huntsman; if, besides this, he makes his hounds both love and fear him; if he is active, and presses them on when the scent is good, always aiming to keep as near the fox as he can; if, when his hounds are at fault, he makes his cast with judgment, not casting the wrong way first, and blundering on the right at last, as many do; if, added to this, he is patient and persevering, never giving up the fox whilst there remains a chance of killing him, he then is a perfect huntsman."

In order to shew the superiority of fox hunting, he relates the following anecdote:—My hounds in running a fox (says he) crossed the great western road, where I met a gentleman travelling on horseback, a servant with a portmanteau, following him. He no sooner saw me, than he rode up to me, and with the greatest eagerness—"Sir, (says he) *are you after a fox?*"—When I told him we were, he immediately stuck spurs to his horse, took a monstrous leap, and never quitted us any more till the fox was killed. I suppose, had I said we were after a hare, my gentleman would have pursued his journey."

The true spirit of fox hunting is not to walk down a fox or starve him to death, but to keep close at him, and kill him as soon as you can. A fox hound may hunt too much; if tender nosed, and not over-hurried, he will always hunt enough; whilst the lightest bred hounds may be made to tie on the scent by improper encouragement. Slackness in the men occasions slackness in the hounds; and any person may perceive by the manner in which the hounds hunt, what kind of men they have been accustomed to.

All hounds go fast enough with a good scent; but it is the particular excellence of a fox hound, when rightly managed, to get on faster with an indifferent scent, than any other hound:—it is the business of a huntsman to encourage this; and here the principles of hare hunting will not apply to the pursuit of the fox. A hare hunter has been used to take his time; he has enjoyed a cold scent like a southern hound; and has sat patiently upon his horse to see his hounds hunt. "It is to be sure very pretty to see; and when you consider that the hare is all the time, perhaps within a few yards of you, and may leap up the next minute,

you are perfectly contented with what you are about ; but it is not so in fox hunting. Every minute you lose is precious, and increases your difficulties ; and, while you are standing still, the fox is running miles.—It is a satisfaction to a hare hunter to be told where the game was seen, though a long while before ; but it is melancholy news to a fox hunter, whose game is not likely to stop.”

When hounds flag from frequent changes and a long day, it is necessary for a huntsman to animate them as much as he can ; he must keep them forward and press them on ; for it is not likely, in this case, that they should overrun the scent : at those times, the whole work is generally done by a few hounds, and he should keep close to them. If they come to a long fault, the business is over.

The many chances in favour of the fox in fox hunting, such as the frequent changing, the heading of the fox, his being coursed by sheep dogs, long faults, cold hunting, and the dying away of the scent, make it necessary to keep always as near the fox as possible :—this should be the first and invariable principle of fox hunting.

Nothing is more essential in fox hunting than the huntsman knowing the country he is to hunt. Foxes are not capricious creatures, but know very well what they are about ; are quick in determining, and resolute in perseverance. They generally have a point to go to ; and, though headed and turned directly from it, seldom fail to make it good at the last ; *this*, therefore, is a great help to a huntsman of discernment.

Huntsmen should not be suffered to encourage their hounds too much on bad scenting days, particularly in covers, where there is much riot.—*Hark ! hark !* which injudicious huntsmen are so apt to use upon every occasion, must often do mischief, and cannot do good ; whilst hounds are near together, they will sooner get to the hound that challenges without that noise than with it. If it be a right scent, they will be ready enough to join ; and if it be a wrong one, provided the huntsman lets them alone, they will soon leave it :—injudicious encouragement on a bad day, might make them run something or other, right or wrong.

There is no fault so bad in the hound as that of running false ; it should never be forgiven : such as are not stout, that are stiff nosed, or that have other faults, may at times do good, and at worst may

do no harm ; whilst such as run false, most probably will spoil your sport.

A huntsman ought to know how to marshal every hound in the pack, giving to each his proper rank and precedence ; for without this knowledge it is not possible he can make a large draft as he ought. There are in many packs some hounds that assist but little in killing the fox, and it is the judicious drafting of such hounds that shews a good huntsman.

Fox hounds to hunt well, should be well in blood. “ When hounds are out of blood, there is a kind of evil genius attending all they do ; and though they may seem to hunt as well as ever, they do not get forward, whilst a pack of fox hounds well in blood, like troops flushed with conquest, are not easily withstood. What we call ill luck, day after day, when hounds kill no foxes, may frequently, I think, be traced to another cause, viz. *their being out of blood* ; nor can there be any other reason assigned why hounds, which we know to be good, should remain so long as they sometimes do without killing a fox.—Large packs are least subject to this inconvenience ; hounds that are fresh and in high spirits, least feel the want of blood. The smallest packs, therefore, should be able to leave at least ten or twelve couple of hounds behind them, to be fresh against the next hunting day. If your hounds are much out of blood, give them rest : take this opportunity to hunt with other hounds, to see how they are managed, to observe what stallion hounds they have, and to judge yourself whether they are such as it is fit to breed from or not.”

“ When hounds are out of blood, give them every advantage : go out early, choose a good quiet morning ; and throw off your hounds where you are likely to find, and are least likely to change : if it is a small cover or furze brake, and you can keep the fox in, it is right to do it ; for the sooner that you kill him when you are in want of blood the better.”

“ When hounds are in want of blood, and you get a fox into a small cover, it must be your own fault if you do not kill him there : place your people properly and he cannot get off again. You will hear perhaps that it is impossible to head back a fox. No animal is so shy, consequently no animal is so easily headed back by those who understand it. When it is your intention to check a fox, your people must keep at a little distance from

the cover side, nor should they be sparing of their voices ; for, since you cannot keep him in, if he be determined to come out, prevent him, if you can, from being so inclined.—All kind of mobbing is advisable, when hounds are out of blood ; and you may keep the fox in cover, or let him out, as you think the hounds will manage him best.

“ Though I am a great advocate for blood, so necessary, in my judgment, to a pack of fox hounds, yet I by no means approve of it to the extent to which it has sometimes been carried. I have known three young foxes chopped in a furze brake in one day without any sport. A wanton destruction of foxes, and scarcely answering the purposes of blood, since that blood does hounds most good, that is most dearly earned. Such sportsmen richly deserve blank days ; and, without doubt, they often meet with them. Mobbing a fox, indeed, is only allowable when hounds are not likely to be a match for him without it. One would almost be inclined to think that blood was as necessary to the men, as to the hounds, since the best chase is flat unless you kill the fox. When you ask a fox hunter what sport he has had, and he replies it was *good* ; I think the next question generally is, *did your hounds kill* ?—If he says they *did not*, the conversation ends ; but if, on the contrary, he tells you that they did, you then ask a hundred questions, and seldom are satisfied till he has told you every particular of the chase.

“ When there is snow on the ground, foxes will lie at earth. Should your hounds at that time be in want of blood, it will be easy to dig one to turn out before them when the weather breaks ; but I seem to have forgotten a new doctrine which I lately heard, that blood is not necessary to a pack of fox hounds. If you also should have taken up that opinion, I have also to wish that the goodness of your hounds may prevent you from the changing of it again, or from knowing the truth of it.”

Perfectly aware as we are that the doctrine promulgated by Beckford in regard to the necessity of blood for a pack of fox hounds, is the general opinion, yet it is necessary to state that there are those who entertain different notions on the subject. From the last paragraph it clearly appears that, in the time of Beckford, dissentients were to be found ; and if our information be correct, the late celebrated Mr. Meynell, to whom fox hunting owes

so much, and who is supposed to have possessed a much more than ordinary share of knowledge on the subject, was of opinion that blood was by no means indispensable to the perfection of the fox hound ; and, beyond all doubt, some very cogent reasons may be brought in favour of the latter opinion : that, however, which appears the most prominent is the circumstance of the stag hound being very seldom allowed blood, and yet his eagerness in the pursuit seems not at all abated.—The king's stag hounds are never suffered to pull down a deer where it is possible to prevent it ; the same remark will equally apply to those of the Earl of Derby ; and indeed to stag hounds in general. There are many packs of harriers which are scarcely ever allowed a hare, and yet it does not appear to slack their mettle. Ferrets, after they have killed rats, are never allowed to eat them, and yet they continue to pursue them with the same degree of fierceness. So that, under all the circumstances of the case, the question as to the necessity of blood for fox-hounds does not seem absolutely determined. However, it is the general opinion, as before observed, and one to which we cannot help subscribing.

“ No good country (says Beckford) should be hunted after February, nor should there be any hunting at all after March. Spring hunting is sad destruction of foxes ; in one week you may destroy as many as would have shewn you sport for a whole season. We killed a bitch fox one morning, with seven young ones, which were all alive : I can assure you we missed them much next year, and had many blank days, which we need not have had but through our own fault. I should tell you that this notable feat was performed literally on the first of April. If you will hunt late in the season, you should at least leave your terriers behind you.”

It is the modern custom, however, to hunt later than March ; and some go so far as to kill a May fox. Beckford's position is, nevertheless, perfectly correct. Dog foxes are more difficult to kill towards spring than any other time ; but the reverse is the case with bitch foxes ; those therefore who are determined to continue fox hunting till a late period of the season should, if possible, ascertain, at the commencement of the run, whether it is a dog or bitch fox which is before them ; and call off, if it happen to be the latter.

Foxes' heads, which are so pompously exposed to view are often prejudicial to sport. How many foxes are wantonly destroyed, without the least service to the hounds, or sport to the master, that the huntsman may say he has killed so many brace. Beckford relates a case in point:—"I remember to have seen a pack of hounds (says he) kill three foxes in one day; and though the last ran to ground, and the hounds had killed two before, and therefore could not be supposed to be in want of blood, the fox was dug out, and killed upon the earth."

All countries are not equally favourable to hounds; and the same hounds that behave well in one will sometimes appear to behave indifferently in another—a good scenting country must of course be always the most favourable; and those countries which stand pre-eminent in this respect, such as the neighbourhood of Melton Mowbray, consist chiefly of pasture land.

In regard to bag foxes, hounds should be as little used to them as possible:—the scent of them is stronger than that of other foxes; and is therefore apt to make hounds idle; besides, in the manner in which they are frequently turned out, it makes hounds very wild. They seldom fail to know what is going forward before the fox is turned out; and if often used to bag foxes will become riotous enough to run any thing. A fox that has been confined long in a small place, and carried out afterwards some miles in a sack, his own ordure hanging about him must needs stink extravagantly; to which may be added, he is most probably weakened for want of his natural food and usual exercise; his spirit broken by despair, and his limbs stiffened by confinement; he then is hurried out in open ground, without any point to go to; he runs down the wind, it is true; but he is so much at a loss all the while, that he loses a good deal of time in not knowing what to do; while the hounds, who have little occasion to hunt, pursue as closely as if they were tied to him. If, however, it be necessary to turn out a bag fox, he should be turned into a small cover, and the hounds should be laid on as quietly as possible—in order that they may suppose they found him.

As bag foxes always run down the wind, those who turn them out may therefore choose what country they shall run. Foxes that are found do not follow this rule universally: strong earths and large covers are great inducements to

them, and it is no inconsiderable wind that will keep them from them.

"If you breed up cubs (says Beckford) you will find a fox court necessary: they should be kept there till they are large enough to take care of themselves. It ought to be open at the top and walled in: I need not tell you that it must be every way well secured, and particularly the floor of it, which must be either bricked or paved. A few boards fitted to the corners will also be of use to shelter and hide them. Foxes ought to be kept very clean, and have plenty of fresh water; birds and rabbits are the best food: horse flesh might give them the mange."

"I have kept foxes too long (he continues): I also have turned them out too young. The safest way, I believe, will be to avoid either extreme. When cubs are bred in an earth near you, if you add two or three to the number, it is not improbable that the old fox will take care of them: of this you may be certain, that, if they live, they will be good foxes; for the others will shew them the country. Those which you turn into an earth should be regularly fed. If they are once neglected, it is probable they will forsake the place, wander away, and die for want of food. When the cubs leave the earth, (which they may soon do) your gamekeeper should throw food for them in parts of the cover where it may be most easy for them to find it; and, when he knows their haunt, he should continue to feed them there. Nothing destroys so much the breed of foxes as buying them to turn out, unless care is taken of them afterwards."

When a country is extensive and not equally good, it may be advisable to send some cubs from one part of it to the other. A fox court, therefore, is of great use; it should be airy, or the cubs should not be kept long in it. If the cubs are large they may be turned out immediately: a large earth will be the best for the purpose, where they can be regularly fed. Where rabbits are plentiful, nature will soon teach them how to catch the young ones; and, till that period of abundance arrives, it will be necessary to provide food for them. Where game is scarce, wet weather will be most favourable to them; they can then live on beetles, chaffers, worms, &c. of which they will find great plenty. The morning is the best time to turn them out: if turned out in the evening they will be more likely to ramble; but, if turned out

early, and fed on the earth, there is little doubt of their remaining. They should be turned into large covers and strong earths; from small earths they are more likely to be stolen; and from small covers, they are more apt to wander. Gamekeepers, at this time of the year, having little else to do, may feed and take care of them.

With respect to digging of foxes that have been run to earth, the hole is generally followed, except where the earth is large, and the terriers have fixed him in an angle of it—the more expeditious method then is to sink a pit as near to him as possible. By listening above ground, that is, by placing your ear close to the ground, a tolerably correct opinion may be formed of the situation of the fox, from the noise of the terriers. A terrier should always be kept at the fox, otherwise he may move, and in loose ground may dig himself further in. In digging, room enough should be kept, and care should be taken not to throw the earth where there may afterwards be occasion to remove it. In following the hole, the surest way not to lose it, is to keep below it. All the holes on the surface should be stopped, lest the fox should bolt unseen.

If hounds are in want of blood, and they have had a long run, it is the best way without doubt to kill the fox on the earth; but if they have not run long, and the fox is easy to be dug, and the cover such a one as they are not likely to change in, it does the hounds more good to turn him out, and let them work for him. But before this is done, if there be any other earths in the cover, they should be stopped, lest the fox should go to earth again.

But, before the operation of digging is commenced, the huntsman should try all round, and be perfectly satisfied that the fox has not gone on: “for want of this precaution (says Beckford) I dug three hours to a terrier that lay all the time at a rabbit.”

A fox will sometimes go over an earth, and will not go into it; he will sometimes go in and will not remain—he may find it too hot, or not like the company he meets with there—a fox has most likely good reasons for all he does, though we are not acquainted with them.

Huntsmen, when they get near a fox, will sometimes put a hound in to draw him. This is, however, a cruel operation, and seldom answers any other purpose than to procure the dog a very severe

biting, the fox's head generally being towards him; besides, a few minutes' digging will make it unnecessary. If you let the fox first seize the handle of your whip, the hound will more readily draw him.

If foxes are bred in an earth which is deemed unsafe, they had better be stunk out; that, or any disturbance at the mouth of the hole, will make the old one carry them off to another place.

Foxes, when they are much disturbed in open countries, will lie at earth. If any difficulty occur in finding, stinking the earths will sometimes produce them again.

Stinking earths may be practised in the following manner:—Three pounds of sulphur and one pound of assafoetida should be boiled up together; matches should then be made of brown paper and lighted in the holes, which are afterwards stopped very close. Earths that are not used by badgers may be stopped early, which will answer the same purpose; but where badgers frequent, it would be useless, as they would open them again.

If terriers be required to run with the pack, large ones at times are useful; but in an earth they do but little good, as they cannot always get up to the fox.

A young terrier should not be entered at a badger (which was formerly much practised); as young terriers have not the art of shifting like old ones; and, if they are good for any thing, most probably will go up boldly to him at once, and thus get themselves terribly bitten; for this reason they should be entered at young foxes where it is convenient.

Besides the digging of foxes, by which method many young ones are taken and old ones destroyed, traps, &c. are too often fatal to them. Farmers for their lambs (which by the bye are very rarely killed by foxes) gentlemen for their game, and old women for their poultry, are their inveterate enemies.

“To those who may think the danger that attends hunting (says Beckford) a great objection to the pursuit of it, I must beg leave to observe, that the accidents which are occasioned by it are very few. I will venture to say that more bad accidents happen to shooters in one year than to those who follow hounds in seven. You will remind me perhaps of the death of F—h, and the fall of D—t; but do accidents never happen on the road? The most famous huntsman, and the boldest rider of his time, after having hunted a



pack of hounds for several years unhurt, lost his life at last by a fall from his horse, as he was returning home. A surgeon of my acquaintance has assured me, that in thirty years' practice, in a sporting country, he had not once an opportunity of setting a bone for a sportsman, though ten packs of hounds were kept in the neighbourhood. This gentleman surely must have been much out of luck, or hunting cannot be so dangerous as it is thought. Besides, they are all timid animals which we pursue, nor is there any danger in attacking them: They are not like the furious beast of the *Gevaudun*, which, as the French author informs us, *twenty thousand French Chasseurs went out in vain to kill!*"

It must be allowed that Beckford's notions of hunting are completely orthodox; his book on the subject contains much sound reasoning, as well as a great variety of judicious remarks. In his time, fox hunting had been much improved; the hound had been rendered more fleet, and the business altogether was better understood than it had been previously to this period: fox hunting has since been cultivated as a science, and the hound used for the purpose of pursuit rendered still more swift. Formerly, a fox chase continued, generally, for four hours; half that period is at present considered a long run; and, with some of our modern crack packs, the business is very often concluded in half an hour.

For the consideration and description of the dog best calculated for the pursuit of the fox, the reader is referred to the article "HOUND."

We shall now sketch a few of those extraordinary runs which have at various times occurred in the pursuit of the fox, and which have rendered fox hunting so celebrated. Some of them have appeared before in print: but they seem, nevertheless, indispensable to the completion of this highly interesting subject.

"I set out (says Beckford) one day last winter from the kennel at half past seven, and returned home a quarter before eight at night, the hounds running hard the greater part of the time. The huntsman killed one horse and tired another; and the hounds did not recover it for more than a week: we took them off at last when they were running with a better scent than they had had all the day. I remember after it was quite dark to have heard a better view halloo from an owl, than I ever heard from a sports-

man in my life, though I hope that I shall never hear such another!"

On the 7th December, 1800, the Duke of Rutland's hounds, after pressing a fox very hard, ran him into the town of Sleaford, where for a long time he dodged about the yards and buildings, and at length went down the open market-place, pursued by a number of different dogs, from which he escaped through the end of the town. So soon as the hounds could be disengaged from the throng of the people, which the circumstance had brought together, they were cast forward and again got upon the scent, and hunted their fox in capital style; but were finally beat after an admirable run of two hours.

In January, 1738, the Duke of Richmond's fox-hounds found at a quarter before eight, and killed at ten minutes before six, after ten hours constant running. Many of the gentlemen tired three horses each. Only eleven couple and a half of the hounds were in at the death.

Upon the 19th of February, 1783, a fox was unkenelled near Boroughbridge, Yorkshire, at twenty-seven minutes past nine, and except half an hour occupied in bolting him from a rabbit burrow, the hounds had a continued run until fourteen minutes past five o'clock in the afternoon, when they killed. During the space of nearly eight hours hard running, several horses died in the field, and many others were so seriously injured that they never perfectly recovered afterwards.

In 1793, Sir Charles Danver's hounds found a leash of foxes in one cover: the hounds divided into three parts; each had a very severe run, and each killed their fox.

In 1795, a pack of fox-hounds in Cambridgeshire, after running a fox nearly an hour, found a brace of fresh foxes; the hounds divided, *six couple and a half* went away with one of them, and killed at Weathersfield. One couple of hounds pursued the other, and killed him at Thurlow Park Gate. *Fifteen couple and a half* stuck to their hunted fox, and killed at the bottom of Gogmagog Hill, after a chase of one hour and three quarters without a check, and in which time they were supposed to have run nearly thirty miles.

In drawing a strong cover, a young bitch gave tongue very freely, whilst none of the other hounds challenged:—the whipper-in rated to no purpose, and the huntsman insisted she was wrong; the whip was applied with great severity, in

which the lash accidentally struck one of her eyes out of the socket : notwithstanding which, the bitch again took the scent, and proved herself right; for a fox had stole away, and she broke after him unheeded and alone; however, after much delay and cold hunting, the pack did at length hit off the chase. At some distance, a farmer informed the sportsmen, that they were far behind their fox, for that a single hound, very bloody about the head, had passed a field off from him, and was running breast high, and that there was little chance of their getting up to him. The pack, from her coming to a check, did at length get up; and after some cold hunting, the bitch again hit off the scent. The fox was killed, after a long and severe run, and the eye of the bitch, which had hung pendant during the chase, was taken off by a pair of scissors.

The Duke of Northumberland's hounds, in the year 1796, ran a fox into a very large furze cover near Alnwick, called Bunker's Hill, where he was lost in an earth, with which no one was acquainted. Upon the hounds returning to the kennel two couple and a half of the best were missing, and not returning that night, it was thought they had found a fox and gone off with him. Men were sent out in search of them to all the earths and crags for many miles round, but no tidings could be gained. The cover where the fox had been lost was then carefully searched, and the earth discovered : in digging about two yards deep, *one* hound was found; several yards further *three* more, wedged together in the ground; and a little further on, the *fifth* hound was dug up—all dead.

On Monday the 14th of March, 1825, the Cheshire fox-hounds (under the direction of Sir Harry Mainwaring) met at Shipbrook Bridge, Cheshire, at half past ten o'clock; and found in Moulton Wood, opposite Winstead Salt Works. The fox went away in gallant style: he faced the open country, and took the direction for Harford Bridge, and then leaning to the right, made for Bostock Park, crossed it, and made over the fields for the river Dane, along the banks of which he proceeded till he approached Leftwich, took the water, leaving Shipbrook Bridge considerably to the right. He then made away in the direction of Holford Moss, passing near to Northwich in his progress. The hounds had pressed him very hard—he was repeatedly viewed, and it was supposed death could be at no

distance. He reached a plantation near Holford Moss, where it was supposed he must surrender, after a brilliant run of three quarters of an hour. However, renard was not disposed to give up on such terms; he left the plantation, and making for Winnington Wood, crossed the main road (between Manchester and Northwich) and was seen to enter Winnington Wood very much distressed. The hounds came to a trifling check on some fallows on the opposite side of Winnington Wood, the fox gained some distance, and ran along the river side, leaving Mr. Townshend's (of Wichand) to the left, and, running in a line for Marbury for some time, came back nearly in the same line for Winnington Wood. On the fox approaching Winnington Wood the second time, he did not enter, owing perhaps to his being unable to keep it on the first occasion; but leaving it to the right, crossed a considerable extent of country and reached Tabley; crossed Tabley Park, leaving the turnpike to the right, and onwards to Mere; he crossed the turnpike road again near the toll bar at Mere, to Mere Moss, and run over the Moss to Tatton Park; crossed it and also the pleasure grounds down to the Mere, along the Mobberly side of the park; but on reaching the water, he turned short up to Knutsford town end; here he appeared to be surrounded by the hounds, and death seemed inevitable: he, however, jumped, or by some means, scrambled over a wall six feet high, and went away again, leaving Knutsford Race Course to the left, in a line for Holford Moss:—he was viewed and headed back: he entered Tatton Park a second time, and proceeding along the Rothern side, turned from the lodge in the direction of Rothern, into a plantation on the Mobberly side of it. Here he was viewed by one of the whippers-in. He left the plantation, and was headed back into it from under Knutsford, and, on being driven through, made away in the direction of Spring Woods, when the pursuit was given up, after nearly six hours' running.

FOYLING or FOILING. The footing of a stag upon the grass where it is scarcely discernible.

FRANK CHASE. Is the liberty of free chase in a circuit adjoining to a forest, by which all men, though they have land of their own within that compass, are forbidden to cut down wood, &c. without the view of the forester.

FRAY. A deer is said to fray his

head, when he rubs it against a tree to renew it, or cause the pills of his new horns to come off. **FREAM.** A term used of a boar, that makes a noise at rutting time.

FREE WARREN. A Free Warren is totally distinct from Forest, Chase, Park, Manor, or Warren; it is a franchise derived originally from the crown; and the person having a grant of free warren over certain lands, possesses the sole right of pursuing, taking, and killing game of every description within its limits; although there may be no one acre of land his own property through the whole district where he possesses this right. There are instances where a variety of circumstances render manorial rights and privileges so complex, and seemingly indefinite, as to produce litigation without personal enmity, but merely that the right shall be legally ascertained. It appears that where manor lands are situate in, and surrounded by, a free warren, the owner of such lands may kill game within his own manor, but he cannot introduce even a qualified person to kill game there also, without the consent of the owner or possessor of the privilege of free warren over the whole; if so, the person introduced killing game, will be liable to an action for trespass.

A curious cause came on to be tried before a jury at the summer assizes of the year 1802, held at Abingdon, for the county of Berks, wherein John Westbrook, gent. of the parish of Bray, (situate in Windsor Forest) was plaintiff, and one of his majesty's gamekeepers defendant. The action was brought to try the right of the gamekeeper to kill game within the *inclosed grounds* of the plaintiff, situate in, and surrounded by, the wastes, commons, and within the boundaries of the said forest. When, without adverting to the laws relative to the forests only (with which the question was totally unconnected) the court held it good that the king, possessing a free warren over the whole, possessed likewise the privilege of appointing a keeper to kill game upon any, and within every, part of the said free warren, without the least exception as to inclosed lands, the property of others; when the jury instantly found for the defendant.

A similar case occurred on the 12th of July of the same year, Henry Brown, Esq. of North Mimms, plaintiff; and Thomas Greenwood, the younger, defendant. The action was brought for a trespass committed by the defendant, in shooting game within the free warren belonging to the plaintiff, who was lord of the manor of North Mimms, and entitled to free warren through the whole manor. It appeared that the land on which the trespass was committed and the game killed, by the defendant, was not, in point of fact, the land of the plaintiff; but, on the contrary, belonged to Justinian Casamajor, Esq. However, as it was proved to be within the manor of North Mimms, and the right of free warren extending over the whole of the manor, the jury, after considering the circumstances of the case, gave a verdict of ten pounds, with costs.

FRET. Another name for the gripes or colic in horses.

FROG, in the anatomy of the horse, a part of the foot, the form and essential purposes of which, Mr. COLEMAN, professor at the Veterinary College, describes in the following terms:—

F R O G

The natural frog of the horse, says he, is placed in the centre of the sole, externally convex, and of a wedge-like form, pointed towards the toe, but expanded as it advances to the heels. In the centre of the broad part, there is a fissure or separation. The frog is connected internally with another frog, of a similar figure, but different in structure. The external frog is composed of soft elastic horn, and totally insensible. The internal frog has sensation, and is much more elastic than the horny frog; and at the extremity of the heels is connected with two elastic substances called cartilages. The toe of the sensible frog is united to the coffin-bone; but more than nine tenths of both frogs are behind the coffin-bone. The toe of the sensible and horny frogs, from their connection with the coffin-bone, are fixed points, and have no motion; but the heels of the frogs being placed posterior to the coffin-bone, and in contact with moveable, elastic, and not fixed or resisting, substances, a very considerable lever is formed, and whenever the horny frog comes in contact with the ground, it first ascends, and then descends. The pressure of the ground also expands the horny frog, and the sensible frog expands the cartilages, and at the heels and quarters, immediately below the hair, totally governs the direction of the future growth of the crust.

This ascent of the frog not only, by its wedge-like form, preserves the heels and quarters from contraction, but affords to the horse an elastic spring, and prevents the animal from slipping whenever it embraces the ground. Without any anatomical enquiry into its internal structure and union with other parts, the shape and convexity of the horny frog clearly demonstrates that it was formed to come into contact with the ground; and the more I investigate this subject, the more I am convinced that the use of the frog is to prevent the horse from slipping, to preserve the cartilages and hoof expanded, and, by its motion, to act as an elastic spring to the animal.

Mr. Coleman contends, that Mr. St. Bel, and many others, who suppose that the use of the frog is merely *to serve as a cushion*, or guard, to the tendon of the flexor muscle of the foot, and who, on that account, were disposed rather to *raise the frog from the ground* by a *thick-heeled* shoe, have been in an error. On the contrary, he maintains it to be a law of nature, that, unless the frog performs its functions, by being allowed to press the ground, it must become diseased. Accordingly, the practise of shoeing very much depends on the functions of the frog being understood.

If the opinions here advanced respecting its uses be well founded, then it must follow, that paring the frog, and raising it from the ground, annihilates its functions, and ultimately, if not immediately, produces disease; and that exposing the frog to pressure is the only proper method to keep it in health. Moreover, it has from experience been ascertained, that, unless the frog sustain an uniform pressure when at rest, the heels as well as the frog contract; but if that organ be in close contact with the ground, then it spreads and is free from thrushes and canker, and operates as a wedge to keep open the heels of the hoof.

Granite and other hard substances give no pain to a frog exposed

to constant pressure in the stable ; but, when above the pavement, it generally becomes contracted, and the sensible frog inflamed, and then one stroke from a projecting stone will produce pain, perhaps lameness, while perpetual perpendicular pressure is attended with salutary effects.

When the hoof contracts, the frog must also become contracted, and inflammation and a suppuration follows, called a *thrush*. No contraction, however, takes place where the frog is made to receive constant pressure, as the standing perpetually on that wedge increases its growth, presses upward the sensible frog, and expands the cartilages of the hoof. And as the first shoot of the crust at the coronet is very thin, the direction of its fibres will be altogether regulated by the width of the cartilages immediately below the hair at the quarters and heels, and the cartilages will be always more or less expanded, and the hoof more or less circular, as the frog has more or less pressure.

On that principle, continues Mr. Coleman, I long since recommended a shoe with *thin heels* as the best formed shoe to bring the frog on the same level ; and with great truth I can assert, that, although in some instances, from a sudden misapplication of the thin-heeled shoe to improper feet, I have seen the tendons affected, yet, from all the experience I have since had, and from what I have seen or heard of the practise of others, I know of no instance where the frog, from constant pressure, did not expand and receive great benefit.

Where the frog is in a morbid state, and unnaturally deprived of perpendicular pressure, it is seldom safe to lower the heels at once, so as to make the frog on a level with the shoe ; and, in many cases, it is not possible with any shoes, or even without shoes, to give the frog pressure on smooth surfaces ; much less is it practicable for the frog to rest on the ground when shod with common thick-heeled shoes. In the stable, therefore, while at rest, the frog is generally raised above the shoe ; and as pressure is essential to its health, particularly when the hoof is exposed to heat, it appeared to me of great importance, in all cases where the heels of the shoe and the frog cannot with safety be made on the same level, to apply an artificial frog, to fit and give any degree of pressure, in the stable, to the natural frog, with any shoes. While the horse is in motion, and the hoof exposed to unequal surfaces, the artificial frog should be removed, as the natural frog, out of the stable, will receive frequent pressure with any shoes ; but that is of short duration, when compared to the length of time the horse remains at rest, and the frog raised from the ground.

Artificial pressure is most particularly wanted when the heat of the stable operates powerfully to contract the hoof. In all cases, therefore, where the pavement of the stable does not touch the natural frog, an artificial frog is necessary to resist contraction of the hoof, thrushes and canker. Sand-cracks, also, very generally arise from a contracted hoof, and may be prevented by the artificial frog.

If the frog does not absolutely rest on the pavement, whatever shoes are employed, the hoof in the stable will be as much disposed

to contract as if the frog was raised any greater distance. I wish this fact to be well considered ; for it has been supposed that shoes with a flat seat, without pressure to the frog, will prevent contraction. But I am fully convinced, that neither thick nor thin heeled shoes, where the frog is raised above pressure, and exposed to the heat of the stable, can prevent contraction or its effects ; and, where the frog receives that pressure, the heels cannot contract even with the most common shoes. For very obvious mechanical reasons, a wedge in the centre of the heels, aided by the pressure from below, must be best calculated to preserve them expanded, or, when the heels are contracted, to force them open. The heat of the stable in all cases tends to contraction of the hoof ; but, with common shoes, there is no pressure on the wedge, or other cause to counteract that tendency. The artificial frog, which is intended to cover and give any degree of pressure to the natural frog only, is made of iron. In order to fit the natural frog, it is requisite to ascertain its width, the length of the foot, and the distance between the lower surface of the shoe and the frog. But if the artificial frog be too long, the toe, which is flat and thin, may be shortened ; and if the heels of the shoe are higher than the artificial frog, nothing more is requisite than to introduce a quantity of tow between the natural and artificial frog, so as to raise it equal or above the level of the shoe. I have ascertained by experience, that no inconvenience takes place by raising the artificial frog even one quarter of an inch above the shoe ; but, in ordinary cases, it should not project more than one sixth of an inch above the surface of the shoe. It may, however, be imagined, that so much perpendicular pressure to the frog would retard rather than increase its growth : but the very reverse is the fact ; for, as the frog, when long elevated above the ground, is very generally contracted, this unnatural lateral pressure excites inflammation of the sensible frog, and deprives, in a great degree, the blood-vessels of the power of secreting horn. When the horny frog is exposed to perpendicular pressure, it gives health, and not disease, to the sensible frog. The blood-vessels secrete their due proportion of elastic horn, and then the cavity of the frog is preserved, expanded, and fully equal to contain the sensible frog, without the smallest degree of lateral pressure.

It therefore follows, that perpendicular pressure increases the bulk of the frog ; while its absence from the ground produces contraction, and lessens its growth.

FROTH. A horse displaying a profusion of froth when champing upon the bit, either in action upon the road, or in the field with hounds, may be a distinguishing sign of both good spirit and sound bottom. It is also no inferior criterion of health, and may, in general, be considered truly indicative of condition : few horses of this description flag upon a journey, or tire in the field.

FRUSH or THRUSH. See **THRUSH**.

FULMART, a POLECAT, which see.

FUMETS, or FEWMETS. The dung of a hart.

FUMIGATION is a most useful process in all cases where the diseases of horses particularly affect the head. In recent colds, obstinate coughs, glandular tumefactions under the jaws, strangles, inflammation of the lungs, low fevers, and even in dullness, over-fatigue, or when a horse is off his appetite, and refuses food, it is very frequently of perceptible utility. Horses may be fumigated by boiling rose-

mary, lavender, marshmallow leaves, and camomile flowers, in a few quarts of water over the fire for a quarter of an hour, then straining off the liquor, and strewing the hot herbs from one end of the manger to the other, fastening the horse's head up with the rack rein, by which means he cannot evade the effluvia. In want of these, or where they are difficult to obtain, a mash made of ground malt, with boiling water, is a very substantial and proper substitute, into which stir two ounces of aniseed, and two ounces of caraway seeds, both fresh, and previously beaten to a powder in a mortar. This mash most horses will afterwards eat, when sufficiently cold for the purpose; which, with the effect of the fumes upon the throat, the nostrils, the glands, and the head, in general will promote a discharge, and relieve the subject.

FUNGUS is the too-fast shooting gra-

nulations of new flesh during the incarnation of wounds, particularly in horses, with whom it is invariably exuberant, and requires some degree of judgment in the suppression: it is too frequently attempted by Roman vitriol, corrosive sublimate, and other caustics; but they are only productive of disappointment, in constituting an eschar upon the surface, and leaving the cure at a more remote and uncertain distance, than before their application. Slight scarifications, both transverse and longitudinal, is a far preferable mode of treatment, and that followed by a dressing of lint covered with proper digestives.

FURNITURE, HORSE. In many parts of the United Kingdom, the saddle, bridle, cloths, and every other part appertaining to the body of the horse, pass under the denomination of horse furniture.

G

GALLS OR GALLING. Good horses are often subject to gall upon their backs, and the utmost care ought to be taken to prevent or cure it. In long journeys, when horses are subject to gall, it is always proper to take off the saddle immediately, and examine whether the back be at all pressed, or pinched in any part. It will be well to examine it after an hour or two, to see what has happened; for often the part hurt will not shew at first, but will swell very violently afterwards. In this case, where the skin is not fretted, but a swelling comes on, a bag of coarse cloth should be filled with warm cowdung, and tied upon the swelling, which will not only prevent it from growing worse, but will take it often quite down; or the swelling may be well rubbed with brandy and vinegar, laying on some rags soaked in it. If the skin be broken, a plaster of any mild salve must be applied.

GALLOP. A well-known pace to which the horse is trained, and of which many kinds are enumerated, but two only worthy of regard, to wit, the *hand* gallop and the *full* gallop. Even these distinctions, however, are founded on the different degrees of velocity in which the animal is impelled, rather than on any peculiarity in the pace itself. In the gallop, the horse leads with one fore-leg somewhat advanced, but not so much beyond the other as happens in the canter; and, when he is urged to his utmost speed,

his legs are almost equally placed. The fleetest horses, when galloping, carry their bodies perfectly in a horizontal posture, and the fewer curves or successive arches are described, the more rapid of course is their progress.

Mr. Richard Lawrence justly observes, that, in every instance of progression, all bodies are retarded in proportion as they depart from a right line, whether this be horizontally or perpendicularly. "None but horses of great powers (says he) are able to gallop in this form: for, to supply the want of undulation in the body, they must bend their limbs in a greater degree; and hence the necessity of their standing perfectly on the centre of gravity. The action of the gallop being more extended than the canter, it is necessary that the horse should have his head more at liberty; for a horse cannot gallop out with his head reined up. Thus, in the swift gallop, he carries his head and neck nearly horizontal."

In galloping, the horse may lead with which fore-leg he pleases; the most usual way is with the right: but, whichever it be, the hind-leg of the same side must follow next; otherwise the legs are said to be disunited, and the gallop to be false. To remedy this disorder, the rider must stay the horse a little on the hand, and help him with the spur a little on the contrary side to that on which he is disunited. As for example, if he be dis-

united on the right side, he should help him with the left spur, by staying him as before on the hand a little, and also helping him at the same time with the calves of the legs.

Those who make a trial of the gallop should observe if the horse performs it equally, and should push him somewhat hard, that they may know by his step whether he has strength and vigour, and if he also be sensible of the spur.

In the manege many varieties of this pace were formerly enumerated, for instance, the following :—

GALLOPADE. In the manege, a hand-gallop, in which a horse galloping upon one or two treads is well united. The difference between working with one haunch in, galloping upon volts, and managing upon *terra a terra*, is, that, in the latter, the two haunches are kept subject, and also are within the volt; but, in galloping a haunch in, only one is kept subject.

To gallop united, upon the right foot, is, when a horse that gallops out, having led with either of his fore-legs, continues to lift that same leg always first; so that the hinder-leg on the side of the leading fore-leg must likewise be raised sooner than the other hind-leg. For instance, if the right fore-leg leads before the left, then the right hind-leg must likewise move sooner than the left hind-leg; and in this order must the horse continue to go on.

To gallop false, to disunite, to gallop on the false foot, is, when the horse, having led with one of the fore-legs, whether the right or left, does not continue to make that leg always set out first, nor to make the hind-leg of the same side with the leading leg to move before its opposite hind-leg; that is to say, the orderly going is interrupted.

A horse that gallops false—gallops with an unbecoming air, and incommodes the rider. If the horse gallops false, put him upon keeping the right foot and uniting, by bringing him to with the calves of your legs, and then with the spur that is opposite to the side on which he disunites. If he disunites to the right, prick him with the left heel.

GALLOWAY is the appellation given to that useful kind of small horse from thirteen to fourteen hands high; they are rarely to be seen of exact symmetry, uniform strength, and adequate action; but, if well-bred, their qualifications, and endurance of fatigue, exceed description.

GAMBADOS, or **MUD BOOTS**, lately introduced for riding on horse-back :—they are suspended from the saddle, and prevent the horse splashing the legs; but they are *unsightly* and *cumbersome*; they cost 28s. create trouble in keeping clean; a pair of over-hauls or legings are to be had for eight or ten shillings, and are by far the more convenient.

GAME, are those animals for the preservation of which a multitude of statutes has been enacted, and consist of the following :—hare, pheasant, partridge, quail, heath fowl (black game), and moor game (red grouse). By some enactments which passed during the administration of the late Mr. Percival, snipes, wood-cocks, and rabbits, were added to the list of game, if they were killed by the gun or fowling-piece; but if taken in nets or springes, they were considered otherwise. Deer are also considered game; and by some antient statutes, the heron, mallard, duck, teal, &c. were included; but which do not appear to be considered so at present.

GAME COCK. See **COCKING**.

GAMEKEEPERS are a class of persons, delegated by legal prescription, to provide game for those by whom they are appointed; as well as to preserve and to protect it against a class of adventurers (poachers) by night, as also from an unfair and improper destruction of it by day.

At the moment of putting these pages together, we are aware that a great alteration is likely to take place in the game laws (in which the office of a gamekeeper is included) as the subject is under the consideration of the legislature. Nevertheless, in order to offer a thorough explanation of the subject, we deem it indispensable to give a consecutive view of the statutes upon the subject, as concisely, however, as is consistent with perspicuity.

By the 22nd and 23rd of Charles II. c. 25, s. 2, lords of manors and other royalties *not under the degree of an esquire*, (Willes, J. in the case of *Jones v. Smart*, said, that a lord of a manor is not an esquire by virtue of his manor or royalty; though in common acceptance he may be considered as such) may, by writing under their hands and seals, appoint gamekeepers within their manors and royalties, who then become authorised to seize all guns, greyhounds, setting dogs, or any other dogs for killing hares or rabbits; as well as snares, nets, &c. for the purpose of taking hares, partridges,

or other game, which may be found within their respective manors, used by unqualified persons. This act, however, does not authorise gamekeepers to kill game, but merely to preserve it.

The 5th of Anne, c. 14, s. 4, however, enables lords of manors to appoint gamekeepers to kill game. But, if he sell game, he is liable, on the oath of one witness, to be sent to the house of correction for three months, and kept to hard labour.

Twenty-five, Geo. III. c. 5, s. 2, enacts, that every deputation of a gamekeeper granted to any person in England or Wales, shall be registered with the clerk of the peace for the county where the manor lies, for which such person is appointed. A neglect of this, as also of taking out a certificate of registry, incurs a penalty of twenty pounds. But gamekeepers to the royal family are exempt from the operations of this act.

If a gamekeeper be qualified in his own right, he has no occasion to enter his deputation. But a gamekeeper is not authorised by any statute to seize game which he may find in the possession of poachers, even on his manor, though it is lawful for him to take their dogs, nets, or other implements.

Also, gamekeepers, if found killing game off the manors for which they are appointed, are liable to the same penalties as unqualified persons. The only difference betwixt them in this case is, that a gamekeeper's gun and dogs are not seizable, while those of an unqualified person may be taken.

By 48, Geo. III. c. 93, s. 2, lords of manors are enabled to appoint and depute any person as gamekeeper whatever, whether acting in that capacity to any other person or not, or the servant of any other person qualified or unqualified, to kill game within a specified manor for the said lord's use, or for the use of any other person or persons to be specified in such appointment, or deputation; nor need such person be entered or paid for as the male servant of the lord or lady who gives the deputation.

Section 3 of this act gives the same authority as a regular gamekeeper.

The following cases are illustrative of the authority of a gamekeeper—*Vere v. Lord Cawdor and King*, M 50 G 3. In this, which was an action of trespass for shooting and killing a dog of the plaintiff's, there was a plea of not guilty, and special plea that Cawdor was the lord of the manor, and the defendant, gamekeeper;

that the dog was running after, chasing, and hunting divers hares, for the preservation of which the gamekeeper shot and killed the dog.

To this plea there was a demurrer; and after argument, Lord Ellenborough, J. C. said, the question is, whether the plaintiff's dog incurred the penalty of death for running after a hare in another's ground? And if there be any precedent of that sort, which outrages all reason and sense, it is of no authority to govern other cases. There is no question here as to the right of the game. But the gamekeeper had no right to kill the plaintiff's dog for following it. The plea does not even state that the hare was put in peril, so as to induce any necessity for killing the dog in order to preserve her. Judgment for the plaintiff. 11. E. R. 568.

Thompson v. Christall. The defendant, one of the Earl of Sefton's gamekeepers, who resides at Kirby, near Liverpool, having admitted to have had in his possession two game dogs belonging to the plaintiff, which he, the defendant, afterwards destroyed or otherwise disposed of, the plaintiff brought this action in the court of king's bench, and the defendant having suffered judgment to go against him by default, the case came before the sheriff at Preston upon a writ of inquiry, when the jury, after a full investigation of circumstances, gave the plaintiff twenty pounds damages, besides the costs.

If a gamekeeper shoot an unqualified person's dog, who thereupon shoots the gamekeeper's, and behaves insolently, the judge will direct very considerable damages. 2 Atkyn's Rep. 190.

Although by stat. 22 and 23 Charles II. c. 25, s. 2, a gamekeeper, so authorised, may search for dogs and engines, or seize the same for the use of the lord, or destroy them; yet it hath been adjudged that an authority from the lord of the manor is not of itself sufficient for the purpose, but that he ought to have a warrant from a justice of the peace: *Comberbach* 183, *Carpenter v. Adams*.

Rogers v. Carter. The plaintiff being gamekeeper within the manor of Ringwood, in beating for game within the said manor sprung a covey of partridges, which he shot at within the said manor. They took a second flight, and he pursued them out of the manor, but could not find them. As he was returning to the manor of Ringwood, he was met by the defendant, who asked if he had a

qualification? The plaintiff answered, I have a deputation from the lord of the manor of Ringwood. The defendant replied, you are now out of the manor, and demanded his gun, and took it from him. The plaintiff did not shoot out of the manor, but was three-quarters of a mile out of the manor with his dog and gun, with an intention to shoot at game.—By the Court. The question is, whether the defendant had a right to take the plaintiff's gun from him, while he was sporting for the purpose of killing game out of the manor of Ringwood?—And we are all of opinion he had no right. If he had killed game, where he was not a gamekeeper, he might have been convicted in the penalty of five pounds, but he was entitled to keep and have dogs, guns, and nets any where; and a gamekeeper's gun cannot be seized either in going to, or returning from, the manor, or in any other place. 2 Wils. 387.

GAME LAWS. The statutes which have been enacted for the preservation of game, and called Game Laws, by no means harmonize with the general spirit of British legislation; on the contrary, they are remarkable for the arbitrary spirit which pervades them, as well as for a sort of paradoxical complexity which renders some parts of them positively absurd and ridiculous. We are under the necessity, however, of giving a succinct view of them for reasons which we stated at the commencement of the last article.

Trespass, which is the entry by one person upon the ground of another, without the owner's consent, is, as far as relates to game, frequently converted into an engine of litigious oppression, and therefore merits consideration under the present head. To enter upon the ground of another, without his consent is a trespass, in the eye of the law, though no injury may have been sustained by the occupier of the land. It is a *wilful* trespass where the person has been warned not to come upon the ground; and *malicious*, where the intention to distress or injure the owner or occupier is evident.

In the sense we are here to consider it, *trespass* applies to qualified, as well as unqualified, persons, though not in an equal degree. The existing statutes upon this subject are fundamentally just and laudable; though it cannot be denied that they have been frequently resorted to (on account of game) merely as a colour to the most vindictive feelings.

An action of trespass may be supported for any unlawful entry on land, although no notice has been given; but, in that case, if the damages recovered be under forty shillings, and only the general issue has been pleaded, the plaintiff will in general recover no more costs than damages; whereas, when a trespass has been committed after notice, it is usual for the judge on the trial to certify that it is wilful, in which case the plaintiff will be entitled to full costs, however small the damages may be.

It is enacted by 42 Elizabeth, and 22 and 23 Charles II. c. 9, that where the jury who try an action for trespass, give less damages than forty shillings, the plaintiff shall be allowed forty shillings costs only; unless (8 and 9, William and Mary, c. 11) it shall appear that the trespass was wilful and malicious, and is so certified to be by the judge, in which the plaintiff shall recover full costs.

However, 4 and 5, William and Mary, c. 23, s. 10, enacts that every inferior tradesman, apprentice, or other dissolute person, may be sued for going upon another man's ground to hunt, &c. though he do no injury; and, if found guilty, shall pay full costs of suit. The reason for which is to discourage the temptation which might otherwise be afforded such persons of neglecting their proper business in pursuit of sport, to the injury of themselves and families.

Who are inferior tradesmen has not been legally defined. Upon the prosecution of a huntsman for being out with his master's hounds, it was decided that the huntsman did not come within the meaning of the act as an "inferior tradesman," or "dissolute person." In the case *Burton v. Mingay*, the question was, whether the defendant, a surgeon and apothecary, not qualified to kill game, came within the description of an inferior tradesman. For the plaintiff it was said, that amongst tradesmen no line can be drawn with respect to who are superior and who are inferior; but that the distinction which the legislature intended was between those who were qualified and those that were not; so that in this respect every tradesman is inferior who is not qualified. For the defendant it was urged, that every case of this kind ought to be determined on its own particular merits, and left to the jury. The court being equally divided, no rule was made.

A lord of a manor, unless he have a right of free warren (which is very seldom

the case) is as liable as any other man to the penalties just enumerated; or, in other words, he cannot sport upon the lands of another, even in his own manor, without permission of the owner or occupier of the land: a tenant can notice his landlord off the estate which he occupies, unless a clause in the lease (which is generally the case) gives the landlord privilege to sport. If a manor is to be strictly preserved, every occupier of land throughout such manor should sign a paper drawn up in the following manner:—

Sir,—I do hereby give you notice, and require you not to enter, or cause or procure to be entered, any of my closes, lands, or premises, situate and being in the manor of ——— or elsewhere, in the county of ——— with horses, dogs, or otherwise, in order to beat for, follow, or pursue any game, or for any other purpose whatsoever; and in case you do not as yet know the local situation of such, my said closes, lands and premises, I hereby give you notice that the same will be pointed out and shewn to you, upon reasonable application at my dwelling house, situate at ———. And I do hereby further give you notice, that in case, after you being served with this notice, you shall commit any trespass upon any part of my said closes, lands, or premises, you will not only be proceeded against as a wilful and malicious trespasser, pursuant to the statutes in that case made and provided, but will also be otherwise prosecuted for such offence according to law. Dated this — day of ——— in the year of our Lord ———

To Mr. ———

The notice may in general be in the above form, but where there will be no difficulty in so doing, it may be advisable either to point out the names or abutments of the closes in the notice, or to annex a sketch of them. It was held in the case of *Sellon v. the huntsman of the Berkely hunt*, sittings at Westminster K. B. after Trinity Term, 1816, that a general printed notice stuck up, purporting to be a notice that the “Stanmore Association” would prosecute all persons trespassing, but not signed by the plaintiff, nor addressed to the defendant, is not a legal notice not to trespass. In order to establish the notice in evidence, it is not necessary to give notice to produce the original notice, but it suffices to produce a duplicate made at the time; by Chambre, justice in the year 1802. 2 Bla. Com. Christian’s edition,

147, with notes. 3 Bla. Com. 215, note b. 2 Campb. Rep. 110.

The oral notice of either gamekeeper, or lord of a manor is insufficient; but is deemed legal from the occupier of the land where the sportsman happens to be found. In all other cases, a written notice, similar to the sketch above given, and signed by all the occupiers of land in the manor, must be given to the trespasser. A gamekeeper cannot legally demand the name of a sportsman, or a sight of his certificate, without first producing his own deputation and certificate:—a gentleman must first produce his own certificate, before he is authorised to see the certificate of another person. In default of certificate, the name and address must be given; and any fictitious name adopted, or evasion resorted to, subjects the party to a penalty of £20.

It is supposed by some, that a person may continue to sport on the same manor all day, though he has been warned off in the morning. This cannot be the case—he may go through the manor to some road, but should he persevere in continuing his diversion for any unnecessary length of time, he becomes a *wilful* trespasser.

On the 12th of May, 1782, the following question of law was determined in the the court of Common Pleas, viz. one gentleman brought an action against another, for trespassing upon the waste of his manor, by remaining there after notice to quit. Upon the trial, it was insisted that the waste was not that kind of property, as to be so strictly sacred from trespass as a manor; but it was over-ruled by the court.

At the summer assizes held at Bury, 1804, two cases were decided before Mr. Justice Heath and special justices, in which Lord Rous was plaintiff, and Sir Henry Smyth, Bart. and William Gill, Esq. two gentlemen of considerable property in Essex, were defendants, for a trespass upon the land of his Lordship, after the parties had received from him a written refusal to a note requesting permission to shoot, and after an oral notice had been given them by his Lordship’s gamekeeper to leave the premises. The judge, after animadverting upon the improper conduct of these gentlemen, informed the jury, that he should certify upon the record that the trespasses were wilful and malicious, which would entitle the plaintiff to his costs, in consequence of which, the jury gave nominal damages only.

At the summer Hertford Assizes, 1809, the Earl of Essex *v.* the Hon. and Rev. Wm. Capel. — The plaintiff declared in trespass for breaking and entering certain closes of the plaintiff, and that with hounds, dogs, and horses, he hunted, sported, and went in, along, and over, the said closes, and trod down and destroyed the grass and herbage of the plaintiff. The defendant pleaded several pleas. First, the general issue, which he afterwards withdrew. Second, that as to breaking and entering the close, called Cashio-bury Park, the defendant, with divers other persons, who, as well as the defendant, were qualified to keep hounds, had found a fox in a certain place called Bricket Wood, not being the close of the plaintiff, and that a fox being a noxious animal, he hunted it with his dogs, hounds, and horses, and that the hunting the fox with dogs, hounds, and horses, was the only way of killing the fox. In the third plea it was stated, that such pursuit of the fox with dogs, hounds, and horses, was the most effectual and proper way of killing the fox. To these pleas the plaintiff replied, that, the hunting of the fox was not the only, or the most effectual, way of killing and destroying it; and further stated, that the trespasses were committed for the sport and diversion of the chase, and for the purpose of amusement and pleasure only. To these replications the defendant rejoined, that the trespasses were not committed for diversion and amusement, but as the only and most effectual and proper way of killing and destroying the fox.

Shepherd, Sergeant, for the plaintiff, contended, that the only question was, whether it was the defendant's object, to rid the country of noxious vermin, or whether he hunted for the sake of amusement?—If it was merely for amusement, the law does not sanction it. Even in the enjoyment of a man's own property, the maxim of the law is, that every man must so use his own, as not to injure his neighbours; if that is the law with respect to the enjoyment of property, then, unquestionably, as to the enjoyment of an amusement, the principle is doubly applicable; and no one can say, that under the pretence of destroying a noxious animal, it is lawful to trespass over every species of property a fox may go through. I should extremely doubt, whether, after starting a fox on one piece of land, persons have a right to follow it on the lands of another,

even if they do it for the destruction of the animal. In *Fentham v. Gundry*, the judgment of the court proceeded upon the plaintiff's admitting, that the way taken by the defendant was the only one to destroy the vermin, and therefore the action could not be supported.

Lord Ellenborough said, "the defendant states in his plea, that the trespass was not committed for the amusement and diversion of the chase merely, but as the only way and means of killing and destroying the fox. Now, if you were to put it on this question, which was the principal motive? Can any man of common sense hesitate in saying, that the principal motive and inducement, were not the killing of vermin, but the enjoyment of the sport and diversion of the chase? and we cannot make a new law, to suit the pleasures and amusements of those gentlemen who choose to hunt for their diversion. Their pleasures are only to be taken, when there is the consent of those who are likely to be injured by them; but they must be necessarily subservient to the consent of others. There may be such a public nuisance by a noxious animal, as may justify the running him to his earth; but then you cannot justify the digging for him afterwards—that has been ascertained and settled to be law; but even if an animal may be pursued with dogs, it does not follow that fifty or sixty people have, therefore, a right to follow the dogs and trespass upon other people's lands. I cannot see what it is that is contended for by the defendant. The only case which will at all bear him out is that of *Fentham v. Gundry*; if it be necessary, I should be glad that that case should be fully considered. I have looked into the case in the year book 12 Hen. VIII. pl. 9. That seems to be nothing more than the case of a person, who had chased a stag from the forest into his own land, where he killed it; and on an action of trespass being brought against the forester, who came and took the stag, he justified that he had made fresh suit after the stag, and it was held that he might state that he was justified, and the plaintiff took nothing by his writ. This is the case upon which that of *Fentham and Gundry* is built; but it is founded upon an *obiter dictum* of Justice Brooke, and it does not appear to me to be much relied on; but, even in that case, it is emphatically said by the judge, that a man may not hunt for his pleasure or his profit, but only for the good of the

common weal, and to destroy such noxious animals as are injurious to the common weal. Therefore, according to this case, the good of the public must be the governing motive." The jury, under his lordship's direction, found a verdict for the plaintiff.

A few words on the *legal property*, which qualified persons have in the game of which they are in pursuit, may not be altogether uninteresting. In general it continues so long *only* as the game remains within the limits of the manor or liberty of the owner; yet it is held, that if, after being started upon a person's own grounds, it be pursued on those of another, it will, nevertheless, be the property of him who started it, because the possession which he gained by finding it within his *own liberty* is continued by the *immediate* pursuit. 11 Mod. Rep. 75. But if it be started on *another man's ground* and killed there, it will belong to him on whose ground it was killed, this property arising *ratione soli*. Lord Raym. 251.

Moreover, if, having been started on another person's ground, it be killed on that of a *third person*, it will belong neither to him on whose ground it was started, nor to him on whose ground it was killed, but to the person who killed it, though he be guilty of a trespass on the grounds of both the other persons.

But if a stranger starts game in the *chase* or *free warren* of another man, and pursues it into the liberty of another, the property will continue in the owner of the chase or free warren, and the keeper may pursue and retake it, as it does not in law pass into a new liberty.

A qualified person cannot justify committing trespasses in the lands of any other person, whether such qualified person be, or be not, lord of the manor. If he commit a trespass upon land in the possession of any other person, he is liable to an action of trespass, let the damage be ever so small, which of course is the reason of giving notice, in order to entitle the plaintiff to full costs; but this notice will not entitle any person thereto but he who gives the notice, though plaintiff be tenant to the person who gives it; and no person but the occupier of the land can maintain action of trespass; and he may maintain trespass against any person entering thereon, and if notice hath been given to keep off, the person coming on afterwards will be a wilful trespasser; (if it appears on the trial that the trespass, however small, was committed after notice,

and the jury gives less than forty shillings damages, the judge is bound, under the stat. 8. and 9. Will. III. c. 11, s. 14, to certify that the trespass was wilful and malicious, in order to entitle the plaintiff to his full costs. 6 Term. Rep. 11.) and his looking for game will be no defence, though pursuing it (as hares by hounds after starting) would perhaps be defence; but even this is much doubted.

Case. The plaintiff in an action of trespass, was lord of the manor, defendant had freehold property in the same manor, and was entitiled to common of pasture and turbary; he had received notice not to trespass on the moors belonging to the manor, for the purpose of hunting, shooting, &c. The question was, whether, after the above notice, defendant could lawfully enter and kill game upon the commons and waste lands within the manor.

Opinion. The circumstances of the defendant having a right of pasture and turbary, and a right of getting stones and slates on the moors, common, and wastes within Caton, in respect of his estates, will not justify his entrance upon those moors to hunt or kill game. If he has a right to enter to kill game there, it will be by virtue of a prescription for that purpose, or of a grant from the owner of the manor, or reputed manor, so to do; and such a prescription may be established by strong evidence of an uninterrupted course of usage, or of a usage in despite of prohibitions to the contrary, or exercised under circumstances shewing it to have been used as a claim of right, and not allowed or connived at as a courtesy or indulgence. The fact of the other freeholders of Caton (the manor) having been in the same habit of sporting within the manor, and of doing so not only on the commons, but on the inclosed lands also, is unfavourable, I think, to the defendant's establishing what he has done as a right in himself to sport upon the manor; and I think, in all probability the result of what has been done by the freeholders of Caton, and by the defendant among the rest, will, on investigation be deemed to have been founded on courtesy, and indulgence, and connivance, and not on right. If, however, the defendant can shew such a strong uninterrupted or adverse course of sporting on the waste lands of the manor, as will induce a jury to believe it founded on a privilege annexed to his estate in Caton, he cannot give that enjoyment in evidence in support of such a right under the general

issue, but must plead it specially, as a prescriptive right appurtenant to his estate, which is the only mode by which he can have an opportunity of trying that question.—G. S. H. Gray's Inn, 11th Feb. 1800.

Should the new game bill to be introduced pass into a law, it will very little affect the law of trespass.

Qualification. Of all the inconsistencies which ever marked the legislative regulations of any country, on the score of absurdity nothing can be found to equal what is called the Qualification for killing game in Great Britain; and why such a ridiculous and so outrageously unjust an enactment has been so long suffered to disgrace the statute book, why it has been suffered so long to stigmatize the good sense and wisdom of the British Parliament, is one of those anomalies which can be squared with no system of sound reasoning or well defined ideas.

The first time we meet with the subject, as laid down by legal enactments, is in the time of Richard II. when forty shillings per annum was deemed sufficient. Prior to the time of Richard II. it would seem that every man was entitled to kill game on his own land; and those who possessed the right of free warren could legally kill game upon any land within the franchise, though it might belong to another person. But by the 13th of Richard II. c. 13, no *layman*, who had not lands or tenements of forty shillings per annum; or *clergyman* not being advanced to ten pounds per year, shall keep any greyhound or hunting dog, nor use any instruments whatever for taking or destroying *gentlemen's* game, on pain of one year's imprisonment.

The 1st of James I. c. 27 rendered it indispensable for a person to possess an estate of ten pounds per annum, or goods to the value of £200, in order to qualification; unless he were the son of a lord or a knight, or the heir apparent of an esquire. In a few years afterwards the qualification sum was raised to £40 a year by the 7th of James I. c. 11.

The most important, however, of the statutes on this head, and that which alone in fact deserves the attention of the sportsman is the 22nd and 23rd of Charles II. c. 25. This is the most modern, and of late years has been uniformly acted upon whenever the subject was brought under legal investigation. By this, every person, not having lands or tenements of, or some other estate of, in-

heritance in his own or his wife's right (*a*) of the clear (*b*) yearly value of £100; or for a term of life, or having lease or leases of 99 years, or for any longer term of the clear yearly value of £150; other than the son or heir apparent of an esquire, or other persons of higher degree (*c*) and the owners and keepers of forests, parks, chases, or warrens, being stocked with deer or conies for their necessary use in regard to the said forests, parks, chases, or warrens, are declared to be persons by the law of this realm, not allowed to have or keep for themselves, or any other person (*d*) guns, bows, greyhounds, setting dogs, ferrets, coney dogs, lurchers, hays, nets, low bells, hare pipes, gins, snares, or other engines for the taking and killing of conies, hares, pheasants, partridges, or other game; but shall be prohibited to have, keep, or use the same.

The 5th of Anne, c. 14, s. 4, may be regarded as a prop or strengthener to the preceding; by this statute it is enacted, if any person not qualified as before stated, shall keep or use (*e*) any greyhounds,

(*a*) This is not to be understood of a tenant by courtesy, but of one whose wife is living—Co. Lit. 351.

(*b*) On this word, it has been held, that the estates must be clear of all mortgages or incumbrances created by the owner or by those under whom he claims—Caldecot's Cases 230. But an equitable estate of that value is sufficient.—Ibid.

(*c*) Esquires are—1. The younger sons of noblemen and their heirs male for ever. 2. The four esquires of the king's body. 3. The eldest sons of baronets or knights of the bath, and knights bachelors, and their heirs male in the right line. A justice of the peace is also an esquire for the time he holds his commission, but no longer—Blount. Persons of higher degree than esquires are colonels, sergeants at law, and doctors in the three learned professions; but neither esquires, nor any of these, are qualified, unless they have the requisite estate mentioned in the preceding part of the act; though their sons are qualified without any estate whatever. 1 Term Rep. 44.

(*d*) An unqualified person, therefore, cannot keep the dogs of a qualified person.

(*e*) These words being in the disjunctive, the bare keeping of one of these dogs is an offence, 1 Stra. 496. As to the using, it has been determined, that walking about with an intent to kill game, is a using within the statute.

setting dogs, hays, lurchers, tunnels, or any other engines, (*f*) to kill and destroy the game, and shall be thereof convicted upon the oath of one witness, by the justice of peace where such offence is committed, he shall forfeit five pounds—one half to go to the informer, and the other half to the poor of the parish; to be levied by distress (*g*) under the warrant of a justice, and for want of distress (*h*) the offender shall be sent to the house of correction for three months for the first offence; and for every after offence four months; and any justice of the peace or lord or lady of manors, are allowed to take away hares or other game, and likewise any dogs, nets, or other engines which shall be in the custody of any persons not qualified to keep the same, to their own use.

And by 22 and 23, Charles II. c. 25, s. 2, it is provided that gamekeepers or any other persons, by warrant of a justice of the peace, may, in the day time, search the houses or other places of any such persons prohibited by this act, to keep or use any dogs, nets, or other engines aforesaid, and the same seize and keep for the use of the lord of the manor; or otherwise cut in pieces and destroy the things so prohibited.

By 4 and 5, W. and M. c. 23, it is enacted, that if any inferior tradesman apprentice, or other dissolute person, shall hunt, hawk, fish, or fowl, (unless in company with the master of such apprentice, duly qualified) such persons may be sued for wilful trespass, on coming on any person's ground, and, if found guilty, shall pay full costs.

Certificate. The first act relative to game certificates was passed in the 25th Geo. III. This statute (c. 50, s. 8) levies a penalty of twenty pounds upon persons pursuing or taking game without a certi-

(*f*) It has been held that a gun is not such an engine, the bare keeping of which is penal; it must moreover be shewn to be used for the destruction of game, 2 Stra. 1098. It is also observable, that though using a gun and a dog are both separately penal, yet, per Lord Kenyon, Chief Justice, if a person go out with a gun and a dog the same day, he is subject to but one penalty. 7 Term Rep. 152.

(*g*) Goods distrained for penalties under the game laws are not repleviable.

(*h*) The justice cannot commit, if the offender have effects sufficient to answer the penalty.

cate; and states further, that the certificate hereby directed to be taken out shall not authorise any person to pursue or take game, unless duly qualified by estate or otherwise. Also, the party thus offending to be liable to the same penalties as are inflicted by former acts now in force.

The list of game includes the following: heron, pheasant, partridge, heathcock, moor game, mallard, duck, wigeon, teal, woodcock, snipe, quail, and landrail; as also hares and rabbits. An act, passed in the 48th Geo. III. inflicts the before mentioned penalties for the pursuit or destruction of any of the animals just mentioned, by persons not duly authorised. See the article GAME.

There is an exception, however, in respect to woodcocks and snipes taken in nets or springes: as also in regard to conies taken in warrens or inclosed grounds by the proprietors of such places; or by any person in lands in his or her occupation, either by himself or herself, or by his or her direction or command.

By this act also, a different method of issuing certificates was ordered to be adopted. Instead of applying to the clerk of the county, the sportsman must pay three pounds fourteen shillings and sixpence into the hands of the collector of duties for the parish, ward, or place where he resides; the collector gives a receipt for the money, and on carrying this receipt to the clerk of the commissioner, acting for the district, a certificate will be given in exchange for the collector's receipt, without any further fee.

This act likewise (sect. 7) provides, that, should a gamekeeper quit his master or mistress before the expiration of the season for which his certificate has been obtained, the same certificate will be sufficient for the successor of such gamekeeper, provided the name of such newly appointed person is indorsed upon it, which the clerk to the commissioners is to do, upon application for that purpose, free of expence. Also, land-holders, legally authorised to appoint gamekeepers, may grant deputations to the servants of other persons for that purpose, whose certificate may be renewed in the same way.

Further, by this act, s. 10, the sportsman, when using dog, gun, &c. must produce his certificate, if demanded, to the assessor, collector, commissioner, or gamekeeper, inspector, or surveyor, or other person assessed as aforesaid; or the owner, landlord, lessee, or occupier of the land upon which he may be found sport-

ing; and must allow the persons, so demanding the same, not only to read, but to take a copy of his certificate, if they think proper. But in case the sportsman has not his certificate about him, he must declare to the person demanding, his christian and surname, and place of abode; as also the parish or place where the certificate has been issued. A refusal, or evasion, by fictitious name or otherwise, subjects the offending party to the penalty of twenty pounds.

By this act too (s. 12) a person sporting without a certificate, is liable to pay the duty for the year, and forfeit the sum of twenty pounds over and above, which is to be assessed by way of surcharge, in the district where the offence shall be committed. And finally (s. 11) the commissioners are to cause the names and residences of the persons taking out certificates to be published annually in the newspapers circulated in each county.

N.B. The royal family are exempt from the provisions of this act.

Statutes to prevent the destruction of winged game, &c. at improper seasons of the year, Christmas Day, Sunday, &c.—It is provided by 9 Anne, c. 25, s. 4, that if any person shall with hays, tunnels, or other nets, destroy in the *moulting season* (that is, between the first of June and the first of October) any wild duck, teal, wigeon, or other water fowl, such persons shall forfeit five shillings, and the nets, &c. used in taking such fowls to be destroyed.

The proper season for shooting grouse (called *red game*) is from the 12th of August to the 10th of December; that for heath fowls (commonly called *black game*) begins on the 20th of August and ends on the 10th of December; for bustards the season commences on the 1st of September and ends on the 1st of March. The penalty for destroying any of these birds (by the 13th of Geo. III. c. 55, s. 2) buying, or selling, or carrying, or even having in possession at any other season of the year, is any sum not exceeding twenty nor less than ten pounds, for the first offence; for every subsequent offence, a sum not exceeding thirty, nor less than twenty, pounds. One half of the penalty to be paid to the informer, and the other half to the poor of the parish; to be levied by distress, if not immediately paid: and in case no distress is to be had, the offender to be committed to the house of correction for any period not exceeding six months, nor less than three. However, by the 43 of Geo. III. c. 112, the season

for *black game* in the New Forest, Hampshire, does not begin till the first of September.

Also (by 4 and 5 W. and M. c. 22, s. 11) no person is allowed, between the 2nd of February and the 24th of June, to burn any gaig, ling, heath, furze, goss, or fern, on any mountains, heaths, or other places where moor game and heath fowls breed, upon pain of being committed to the house of correction for any time not exceeding one month, nor less than ten days.

The season for shooting *partridges* begins on the 1st of September and ends on the 1st of February; that for *pheasants* commences on the 1st of October, and closes at the same time as partridge shooting: the penalty attached to the taking, destroying, carrying, or having in possession, at any other period of the year, any of these birds, is five pounds for every pheasant or partridge; unless, however, such pheasant or partridge was taken at the proper season of the year, and kept in a mew or breeding place. The whole of this penalty to be paid to the informer, with full costs of suit.

As to woodcocks, snipes, quails, land-rails, and rabbits, there is no specified time for their destruction, though snipes as well as quails, breed in this country. In fact, it does not appear that either woodcocks, snipes, or rabbits are that species of game the bare possession of which, in an unqualified person, is penal, unless it can be proved that the two first were *shot*, and the last caught in a place other than a warren, &c.

By the 35th, therefore, of Geo. III. c. 80, s. 1. it is provided, that if any person shall take or destroy any hare, pheasant, partridge, moor game, or heath game, between seven o'clock at night and six in the morning, from the 12th of October to the 12th of February; and between nine o'clock at night and four in the morning, from the 12th of February to the 12th of October; such person, upon conviction before a justice of the peace, upon the oath of one witness, shall forfeit a sum not exceeding twenty pounds, nor less than ten; for every subsequent offence, a sum not exceeding thirty pounds nor less than twenty—half to the informer, the other half to the poor.—Also, should a person be found *using* a dog, net, &c. with an *intent* to destroy the game above mentioned, at the specified prohibited times, he will be liable to the same penalties.

By s. 6, also of the same act, a person

who shall take or destroy any of the last mentioned animals on a Sunday or on a Christmas day (in the day time) or use dog, &c. for that purpose, will be liable to the same penalties as are inflicted for destroying game in the night, and to be convicted in the same manner.

Thirty-nine and 40 of Geo. III. c. 56, enacts, that if two or more persons be found in a forest, park, wood, plantation, field, meadow, or other open or inclosed ground, between the hours of eight o'clock at night and six in the morning, from the 1st of October to the 1st of February; or between the hours of ten at night and four in the morning, from the 1st day of February to the 1st of October; having any gun, &c. for the purpose and intent to take or destroy any hare, pheasant, partridge, moor or heath game; or if any person shall be found with fire arms, or other weapons aiding or assisting any such person as aforesaid, it shall be lawful for the owner of the place where any such person is found, or for his servants, or in fact, any person, to apprehend such offenders, and deliver them into the custody of a peace officer, by whom they are to be conveyed before a justice of the peace; who is authorized to commit such offenders to the house of correction, there to suffer such punishments as are directed to be inflicted on rogues and vagabonds. Or, in case such offenders make their escape, any justice, on the oath of one credible witness, may issue his warrant for their apprehension; and such persons, upon being apprehended, may be committed, upon the oath of one credible witness, the same as though he had been taken on the spot.

Buying and Selling Game. The 5th of Anne, c. 14, s. 2, enacts, that if any higer, chapman, carrier, innkeeper, victualler, or alehouse keeper, shall have in his possession any hare, pheasant, &c. (unless belonging to a qualified person) or shall buy, sell, or expose for sale, any such hare, &c. such offender shall forfeit the sum of five pounds; and the oath of one witness shall be a sufficient conviction—half the penalty to the informer, and the other half to the poor of the parish; to be distressed for if necessary; and in default thereof, the offender to be committed to the house of correction for three months; and for the second and every subsequent offence four months.

Also, s. 3 of the same act allows any person buying or selling game to inform against any other person so offending,

and to be allowed the same benefit as any other informer; and himself discharged from the above mentioned penalties.

By s. 4, the lord of the manor, or justice of the peace, may take to his own use any game which shall be found in the custody or possession of any unqualified person; unless protected by some qualified person.

If any person, whether qualified or unqualified, shall sell or expose for sale any hare, pheasant, &c. every such person shall be liable to a penalty of five pounds for every hare, &c.—on the oath of one witness—half to the informer, and half to the poor of the parish. Or, if any game be found in the house, shop, or possession of any poulterer, salesman, fishmonger, cook, or pastry cook, the same shall be deemed an exposing thereof to sale.

By 58 Geo. III. c. 75, the buyer (whether qualified or not) of any partridge, or any other game, is liable to a penalty of five pounds for every head of game he may purchase; and may be convicted on the oath of the very person who sold him the game; who, for his information, will not only be borne harmless, but entitled without further trouble to half the penalty; and is at liberty, if he think proper, to sue for and recover the whole.

Tracing Hares in the Snow. Fourteen and 15 Henry VIII. c. 10, inflicts a penalty of six shillings and eight pence for tracing and killing a hare in the snow. The 1st of James I. c. 27, inflicts three months' imprisonment on the offender for tracing or coursing a hare in the snow; unless the offending party pay to the churchwardens for the use of the poor, twenty shillings for every hare; or within one month after commitment, become bound, with two sureties, in twenty pounds each, not to offend again in like manner. Two witnesses are necessary in this case, as also two justices of the peace.

The same penalty, by the same act, is also inflicted for taking hares, with hare pipes, snares, or any other engines—two witnesses are necessary to convict the offender, before two justices.

Also by the 22nd and 23rd of Charles II. c. 25, if any person be found using or setting any snare or other engine, for the purpose of taking hares, he shall make the injured party such recompence as the justice shall appoint, and pay down immediately, for the use of the poor, a sum not exceeding ten shillings; otherwise to be committed to the house of correction for a time not exceeding one month. In

this case, the oath of one witness before one justice, is sufficient; but it must be done within one month after the offence is committed.

Hence the same penalty attaches for shooting a hare, even by a qualified person. Hares should be *coursed*, or killed by harriers.

The Statutes relating to Rabbits. By 3 James I. c. 13, s. 2, if any person shall, by night or by day, unlawfully enter into any park or grounds, inclosed with a wall, pale, or hedge, and used for the keeping of conies, and unlawfully hunt, take, chase, or slay, any conies, within such park or ground, against the will of the owner, and shall be thereof convicted, at the suit of the king or the party, at the assizes or sessions, he shall suffer three months' imprisonment, pay treble damages and costs to the party, to be assessed by the justices before whom he shall be convicted, and shall find sureties for his good behaviour for seven years, or remain in prison till he does.

And by 22 and 23 Charles II. c. 25, s. 4, if any person shall at any time wrongfully enter into any warren or ground lawfully used for keeping or breeding of conies, though the same may be not inclosed, and shall chase or kill any conies, against the will of the owner, or occupier, not having lawful title so to do, and shall be thereof convicted, within one month after such offence, by confession, or oath of one witness, before one justice, he shall yield to the party aggrieved treble damages and costs, and suffer three months' imprisonment, and so long after till he find sureties for his future good behaviour.

And by 5 Geo. III. c. 14, it is enacted, that if any person shall enter into such warrens or grounds in the night time, and take or kill any coney, against the will of the owner or occupier of the said ground, or shall be aiding or assisting therein, and be thereof convicted at the assizes, he shall be transported for seven years, or suffer such other punishment, by whipping, fine, or imprisonment, as the court shall award.

And by 9, Geo. I. c. 22, if any person, being armed and disguised, shall appear in any warren or place where hares or conies are usually kept, or unlawfully rob any such warren, or shall, though not armed and disguised, rescue any person in custody for such offence, or procure any person to join him therein, he shall be guilty of felony without benefit of clergy.

By 22 and 23 Charles II. it is provided, that no person shall kill or take, in the night, any conies upon the borders of a warren, or other grounds lawfully used for the breeding and keeping of conies, except such person be the owner of the soil, or the lawful possessor of the ground, whereupon such conies shall be killed, or be by him employed, upon pain of such satisfaction as the justices of the peace shall award; and also pay to the overseer for the poor, a sum not exceeding ten shillings; or, in default thereof, to be committed to the house of correction for a term not exceeding one month.

And by the same act, any person convicted of setting or using any snares, or other like engines for the taking of conies, shall be liable to the same penalties as in the last mentioned section.

A man cannot have an action on the case of another man's conies breaking into his ground; because they are in their natural liberty when they are out of the warren; but the owner of the soil may lawfully kill them while they are on his ground. Cro. Eliz. 547. 5 Co. 104.

The lord of the soil may make burrows in a common, and stock them with rabbits; and therefore a commoner cannot justify chasing them thence, *damage fasant*, for he ought to come there but to use his common; but if the lord surcharge the commoner, he is liable to an action for so doing. Cro. Jac. 195, 208, 229.

If the lord hath a right to put conies upon the common, and by an excess in number surcharges the common, and by the number of burrows made by the conies, prevents the commoner's cattle from depasturing the common, an action in such a case is the proper remedy, and the tenant may not of his own accord fill up the burrows and remove the nuisance. Cooper v. Marshall, 1 Burr. 259.

Conies in a warren shall go to the heir, and not to the executor. Co. Litt. 8.

The law relating to pigeons. Any person who shall shoot or destroy in any manner, any pigeon, shall, on conviction before two justices, on the oath of two witnesses, be committed to jail for three months; or pay for the use of the poor, twenty shillings for every pigeon; or, within one month after commitment, find sureties not to offend again.

However, by 2 Geo. II. c. 29, one witness and one justice are sufficient; to forfeit twenty shillings to the person who prosecutes, or be committed to the house

of correction and kept to hard labour for any term not exceeding three calendar months or less than one. Notwithstanding a man has a right to shoot any pigeons he may find destroying his corn.

A very severe statute was passed in 1816. It runs thus :—Whereas the laws now in force having been found insufficient to prevent idle and disorderly persons from going out armed in the night time, for the destruction of game : And whereas such practises are found, by experience, to lead to the commission of felonies and murders : For the more effectual suppression thereof, it is enacted, that if any person or persons shall unlawfully enter into, or be unlawfully found in, any forest, chase, park, wood, plantation, close, or other open or inclosed grounds, in the night time, that is to say, between the hours of eight of the clock at night and seven in the morning, from the first day of October to the first of March, or between the hours of ten at night and four in the morning, from the first day of March to the first day of October, in each and every year, having any gun, net, engine, or other instrument, for the purpose and with the intent to destroy, take, or kill, or shall wilfully destroy, take, or kill, any hare, rabbit, pheasant, partridge, heath fowl, commonly called black game, or grouse, commonly called red game, or any other game ; or if any person or persons shall be found with any gun, fire-arms, bludgeon, or with any other offensive weapon, protecting, aiding, abetting, or assisting any such person or persons as aforesaid, every person so offending, being thereof lawfully convicted, shall be adjudged guilty of a misdemeanour, and shall be sentenced to transportation for seven years, or shall receive such other punishment as may by law be inflicted on persons guilty of misdemeanours, and as the court before which such offenders may be tried and convicted, shall adjudge ; and if any such offender or offenders shall return into Great Britain before the expiration of the term for which he or they shall be so transported, contrary to the intent and meaning hereof, he or they, so returning, and being thereof duly convicted, shall be adjudged guilty of felony, and shall be sentenced to transportation for the term or terms of his or their natural life or lives.

A justice, on information before him, on the oath of any credible witness or witnesses, may issue his warrant for the apprehension of such offender or offend-

ers ; and if, upon the apprehension of any such offender or offenders, it shall appear to such justice, on the oath of any credible witness or witnesses, that the person or persons so charged hath or have been guilty of any or either of the said offences, it shall and may be lawful for such justice to admit such person or persons so charged to bail, and, in default of bail, to commit such person or persons to the county gaol until the next general quarter sessions of the peace, or the next general commission of gaol delivery.

Mutiny Act. According to this, if any officer or soldier shall kill any kind of game, poultry, or fish, and be convicted, on the oath of one witness, before a justice, an officer so offending shall forfeit five pounds to the poor of the parish ; but if a soldier be thus convicted, the commander-in-chief of the place shall pay twenty shillings for every such offence ; and, if not paid within two days after demand by the constable or overseer of the poor, he shall forfeit his commission.

The Statutes relating to Dogs. It is a nuisance for any ferocious or mischievous dog to be at large and unmuzzled, and the owner may be indicted.

An action may be maintained against a man for keeping a dog *accustomed* to bite sheep : if it can be proved that the dog has ever bitten one before, it is deemed a sufficient proof of his being *accustomed* to do so.

Should the dog of one man fall upon that of another, he is justified in using violence even to the death of the offending dog, if it appear probable that he could not otherwise rescue his own dog.

If any person take up a lost dog, he must restore him on being demanded by the owner, or an action in trover may be maintained against him, in which he will be liable to damages and costs.

The 10th of Geo. III. c. 18, enacts, that if any person shall steal any dog or dogs, of any kind whatsoever, from the owner, or from any person entrusted by the owner with such dog or dogs, or shall sell, buy, receive, harbour, detain, or keep, any such dog or dogs, knowing the same to be stolen, every such offender, convicted on the oath of one witness, before two justices, shall, for the first offence, forfeit a sum not exceeding thirty, nor less than twenty, pounds, at the discretion of such two justices ; together also with the charges previous to and attending such conviction, to be ascertained by such justices. In case such penalty be not im-

mediately paid, such justices may commit the offender to the house of correction, for a time not exceeding twelve, nor less than six, calendar months; or till the penalty be paid. For a second offence, the offender shall forfeit a sum not exceeding fifty, nor less than thirty, pounds; together also with the charges.

November, 1780, *Johnson v. Overall*. The declaration stated, that the defendant discharged a certain gun, loaded with gunpowder and bullets, and shot a certain dog of the plaintiff. The defence was, that only four sorts of dogs were in law of any value, and those specified. Dog in the declaration not specified, and therefore did not appear of any value.—Plaintiff nonsuited.

To an action of trespass for killing plaintiff's dog, the defendant may plead that the dog chased the rabbits in his warren, or the deer in his park; but not that he chased a hare into the defendant's land. 2 Morg. 265.

A dog is such a creature that a man may have a property in, and action has been brought for taking a hound, and the plaintiff recovered. The like of a bloodhound, greyhound, pointer, setter, spaniel, lurcher, and terrier.

If a person hunt upon the ground of another, such other person cannot justify killing of his dogs, as appears by 2 Roll. Abr. 567. But this has been overruled; and in the case of *Wadhurst v. Damme*, Cro. Jac. 44, it was held that a warrener may justify killing a mastiff dog in the warren pursuing the conies, to prevent his destroying them. So, if a dog run after deer in a park. 3 Lev. 28.

A man may justify an assault in defence of his dog. Cro. Eliz. 125.

It having been once known to the owner that his dog bit a person, he appears to be answerable for a subsequent mischief, although the person bitten had given some accidental occasion for it, as by treading on the dog's foot; for it was owing to his not hanging the dog on the first notice. And the safety of the king's subjects ought not to be endangered. 2 Stra. 1263.

Of destroying the Eggs of Wild Fowl and Winged Game. By 25 Hen. VIII. c. 11, it is enacted, that no person, from the first day of March to the 30th of June, shall destroy or convey away any eggs of wild fowl from any nest where they shall be laid, upon pain of imprisonment for one year; and of forfeiting for every egg of any crane or bustard, 20 pence; for

every egg of bittern, heron, or shoveldar, 8 pence; for every egg of wild-duck, teal, or other wild-fowl, one penny.

And by James I. c. 27, s. 2, any person who shall take the eggs of any pheasant or partridge out of the nest, or wilfully break or destroy the same, shall, on conviction before two justices, by confession, or oath of two witnesses, be committed to gaol for three months, unless he pay to the churchwardens, for the use of the poor, 20 shillings for every egg; or within one month thereafter become bound, with two sureties in 20 pounds each, not to offend again.

GAMES of ART are those in which the skill, judgment, and penetration of the player are immediately concerned, and upon which alone his success must entirely depend. In this class are included billiards, chess, draughts, cricket, fives, tennis, bowls, and some others, as well as a few upon the cards.

GAMES of CHANCE. Those games are so called, which depend solely upon the turning up of a card, or the uncertain "hazard of the die."

GANGLION. A moveable tumour formed any where about the tendons of muscles and on the ligaments.

The cure is effected, in horses, by making an incision through its whole length, and afterwards dressing as in wounds in general; or they may be successfully extirpated, taking care not to wound the subjacent tendon or ligament, which can be generally avoided. Cutting away part of the cyst, and then digesting the rest away, by applying verdigrise or sublimate to it, will always succeed.

GANGRENE. A very great and dangerous degree of inflammation, wherein the parts affected begin to put on a state of putrefaction. Hence a gangrene appears to be a mortification in its beginning state, while yet the part retains some sense of pain, and some of the natural heat, by which last it is distinguished from a sphacelus, or thorough mortification, where there is no sense of warmth left.

The signs of a gangrene are when the symptoms of inflammation suddenly disappear, without taking away the cause; a dull sense in the part, softness, flaccidity, not rising again if depressed; pustules full of lymph, sometimes yellowish, at other times of a reddish colour, in and about the place inflamed. After this comes on a blackness of the flesh, &c. the signs of actual mortification.

G A N N E T

GANNET, THE, OR SOLAND GOOSE. The Gannet is of the size of a tame goose, but its wings much longer, being six feet over. The bill is six inches long, straight almost to the point, where it inclines down, and the sides are irregularly jagged, that it may hold its prey with greater security. It differs from the cormorant in size, being larger; and its colour, which is chiefly white; and by its having no nostrils, but in their place a long furrow that reaches almost to the end of the bill. From the corner of the mouth is a narrow slip of black bare skin, that extends to the hind part of the head; beneath this skin is another that, like the pouch of the pelican, is dilatable, and of size sufficient to contain five or six entire herrings, which, in the breeding season, it carries at once to its mate or its young.

These birds, which subsist entirely upon fish, chiefly resort to those uninhabited islands where their food is found in plenty, and man seldom comes to disturb them. The islands to the north of Scotland, the Skelig islands off the coasts of Kerry in Ireland, and those that lie in the north sea off Norway, abound with them. But it is on the Bass island, in the Frith of Edinburgh, where they are seen in the greatest abundance. "There is a small island," says the celebrated Hervey, "called the Bass, not more than a mile in circumference. The surface is almost wholly covered, during the months of May and June, with their nests, their eggs, and young. It is scarcely possible to walk without treading on them: the flocks of birds upon the wing, are so numerous, as to darken the air like a cloud; and their noise is such that one cannot without difficulty be heard by the person next to him. When one looks down upon the sea from the precipice, its whole surface seems covered with infinite numbers of birds of different kinds, swimming and pursuing their prey. If, in sailing round the island, one surveys its hanging cliffs, in every crag, or fissure of the broken rocks, may be seen innumerable birds, of various sorts and sizes, more than the stars of heaven, when viewed in a serene night. If they are viewed at a distance, either receding, or in their approach to the island, they seem like one vast swarm of bees."

They are not less frequent upon the rocks of St. Kilda. Martin assures us, that the inhabitants of that small island consume annually near twenty-three thousand young birds of this species, besides an amazing quantity of their eggs. On these they principally subsist throughout the year; and from the number of these visitants, make an estimate of their plenty for the season. They preserve both the eggs and fowls in small pyramidal stone buildings, covering them with turf-ashes, to prevent the evaporation of their moisture.

The gannet is a bird of passage. In winter it seeks the more southern coasts of Cornwall, hovering over the shoals of herrings and pilchards that come down from the northern seas; its first appearance in the northern islands is in the beginning of spring, and it continues to breed till the end of summer. But, in general, its motions are determined by the migrations of the immense shoals of herrings that come pouring down at that season through the British channel, and supply all Europe, as well as this bird, with their spoil. The

gannet assiduously attends the shoals in their passage, keeps with them in their whole circuit round our island, and shares with our fishermen this exhaustless banquet. As it is strong on the wing, it never comes near the land; but is constant to its prey. Wherever the gannet is seen, it is sure to announce to the fishermen the arrival of the finny tribe: they then prepare their nets, and take the herrings by millions at a draught; while the gannet, who came to give the first information, comes, though an unbidden guest, and often snatches its prey from the fisherman, even in his boat. While the fishing season continues, the gannets are busily employed; but when the pilchards disappear from our coasts, the gannet takes its leave to keep them company.

The cormorant has been remarked for the quickness of his sight; yet in this the gannet seems to exceed him. It is possessed of a transparent membrane under the eye-lid, with which it covers the whole eye at pleasure, without obscuring the sight in the smallest degree. This seems a necessary provision for the security of the eyes of so weighty a creature, whose method of taking its prey, like that of the cormorant, is by darting headlong down from a height of a hundred feet and more into the water to seize it.—These birds are sometimes taken at sea, by fastening a pilchard to a board, which they leave floating. The gannet instantly pounces down from above upon the board, and is killed or maimed by the shock of a body where it expected no resistance.

These birds breed but once a year, and lay but one egg, which being taken away, they lay another; if that is also taken, then a third; but never more for that season. Their egg is white, and rather less than that of the common goose, and their nest large, composed of such substances as are found floating on the surface of the sea. The young birds, during the first year, differ greatly in colour from the old ones; being of a dusky hue, speckled with numerous triangular white spots; and at that time resembling the colours of the speckled diver.

The Bass island, where they chiefly breed, belongs to one proprietor; so that care is taken never to fright away the birds when laying, or to shoot them upon the wing. By that means they are so confident as to alight and feed their young ones close beside you. They feed only upon fish, as was observed: yet the young gannet is counted a great dainty by the Scots, and is sold very dear; so that the lord of the islet makes a considerable annual profit by the sale.

GARGET. A disease of the horse, is a swelling and inflammation of the head, affecting in particular the eyes and lips, and in the end inflaming also the gums and tongue. It is sometimes contagious. For the cure, the creature must be bled every day till the inflammation subsides. Immediately after the first bleeding, give two ounces and a half of Epsom salts, dissolved in a pint of warm ale; after which, night and morning, the following drench

has been recommended:

Take of warm ale, half a pint;
Salt prunella, or nitre in powder, half an ounce;
Venice treacle, a quarter of an ounce.

Mix these together, and give it in one dose.

The animal must be kept clean, dry, and quiet. It may be necessary, however, to look into the mouth for blisters, which

generally appear upon the tongue ; and, if there are any, break them, and dress them with ægyptiacum, or honey and vinegar. When the inflammation is likely to be considerable, local bleeding is very useful.

GASKIN or **GASCOIN** is that part of the hind quarter of a horse extending from the stifle (or inferior point of the thigh approaching the belly) to the bend of the hock behind ; upon the shape, strength, and uniformity of which, the property, action, and excellence of the horse very much depends. If the gaskins are wide, and divide below the tail in a curvilinear arch on the inside, with a prominent swell of the muscle on the outside, it is not only indicative of great strength, but adds considerably to the symmetry and value of the horse when viewed behind. A horse well formed in the gaskins, is seldom badly shaped in the fore quarters ; nor are they, in general, horses of inferior action ; exclusive of which, they are insured from the very awkward defect of cutting.

GATE NET. A gate net is a principal part of the stock in trade of a professed poacher ; and, in respect to hares, the most destructive nocturnal instrument that can be brought into use. In the first place, the poacher ascertains, in the course of the day, if possible, the field or fields where hares feed. The animals move from their seats or forms on the approach of dusk, and seem to spend some time in reconnoitring, as it were, the surrounding country, when they approach those places where they intend to feed. An hour after nightfall they will be feeding, and will continue in their feeding place for several hours ; when they again scour the country, and return to their feeding ground several hours before day. The experienced poacher is well aware of this, and he acts accordingly. He repairs to the feeding ground, at the period when he knows the animals are supplying the cravings of their appetite, with his gate net, and attended by a dog. A lurcher, or an animal bred between the bull and terrier, is very well calculated for the purpose, as he will generally run mute ; and, if not, the poacher is not very scrupulous as to the means he employs in rendering him silent, which he sometimes accomplishes by perforating his tongue by a red hot piece of iron. The net is made sufficiently wide so as to extend from one side of the gate place to the other, and about one yard in depth. The meshes are tolerably wide, even to admit

the head of a hare, by which means she is the more readily entangled. Two sticks, about half the thickness of a man's wrist, or perhaps scarcely so much, are stuck in the ground at such a distance from each other as to stretch out the net, or keep it extended, the top part of the net near to each end or extremity being stuck into notches, or rather clefts, sloping downwards, which have been already cut in the sticks ; and thus, though the net is kept suspended, yet a slight pressure against it, pulls it out of the notches just mentioned. When prepared, the bottom of the net, for five or six inches or more, remains on the ground, the better to entangle the object. When all is ready, the dog is encouraged to scour the field, which he does with great alacrity. The hares of course immediately take the alarm, and making directly for the gate, run against the net, which is thus drawn out of the notched sticks, and they become entangled. The poacher or his accomplice has already stationed himself near the gate, and instantly puts a stop to the cry of poor pussy, and re-sets the net. If there is only one hare in the field, it is twenty to one but she is caught ; if there are several, more than one might possibly run against the net at the same time ; or, if the net is quickly re-set, a second may be caught, &c.—It might at first appear very strange, that, on occasions like these, hares should uniformly make for the gate, and to those who are unacquainted with the subject this will require a little explanation. It is very well known, even by those superficially acquainted with rural affairs, that the hare in general makes use of *meuses*, or small holes in the bottom of the hedge, in passing from one field to another, and hence it might appear that, in preference to making for the gate she would thread these holes or *meuses* ; in the day time, in all probability, she would do so : but, strange as it may appear, she will avoid them, if possible, in the night, particularly if chased by a dog, or otherwise alarmed ; and thus the poacher by merely placing his net at the gate is enabled to accomplish his object, without the trouble of setting wire snares or purse nets at the *meuses*. In fact, in order to be able to place a snare at the *meuses* or runs, he must have the benefit of daylight, whereas the gate net can be very well managed in the night ; and where game is in tolerable plenty, vast numbers of hares may be caught with the gate net only. If there happen to be a

clear open gap in the hedge, it will be necessary to place a gate net there also, as the hare is just as likely to run through it, as to make her way out at the gate. When the hare is alarmed in the dark, she seems anxious to have as clear a course as possible; and cautiously avoids the meuses from fear perhaps of being caught by the briars.

It is said that the most effectual mode of counteracting the effects of the gate net is by painting the lower bar of the gate white: how far this might have the desired effect, the writer is not able to state from experience; but he is inclined to suppose that, though the hares at first might be somewhat alarmed at the white bar or bars, he supposes they would soon become familiar to the appearance, and conse-

quently act as if no appearance of that sort presented itself.—The gate net is placed by the poacher on the outside of the gate, and, as already observed, at about the distance of one yard.

GAZEHOUND. The name by which the species of dog we now term greyhound was formerly called. With what propriety an animal of almost every colour should be equally denominated *grey* does not appear; any more than at what particular period the change in appellation may have taken place. As the pursuit of the greyhound is entirely by *sight* and not by *scent*, it would appear that *gazehound* would be the more proper denomination of the two, and that the present is no more than a perversion of the original.

GAZELLE. An animal between a goat and a deer. The gazelles are, in general, inhabitants of the warmer climates; and contribute, among other embellishments, to add beauty to those forests that are for ever green. They are often seen feeding in herds, on the sides of the mountain, or in the shade of the woods; and fly altogether, upon the smallest approaches of danger. They bound with such swiftness, and are so very shy, that dogs or men vainly attempt to pursue them. They traverse those precipices with ease and safety, which to every quadruped else are quite impracticable; nor can any animals, but of the winged kind, overtake them. Accordingly, in all those countries where they are chiefly found, they are pursued by falcons; and this species of the chase formerly made one of the principal amusements of the upper ranks of people all over the East. The Arabians, Persians, and Turks, trained for this purpose, that kind of hawk called the *falcon gentle*, with which, when properly trained, they went forth on horseback among the forests and the mountains, the falcon perching upon the hand of the hunter. Their expedition was conducted with profound silence; their dogs were taught to hang behind; while the men, on the fleetest coursers, looked round for the game. Whenever they spied a gazelle at the proper distance, the falcon, with the swiftness of an arrow, flew to the animal; that, knowing its danger, endeavours, but in vain, to escape. The falcon soon coming up with its prey, fixes its talons, one into the animal's cheek, the other into its throat, and thus deeply wounds it. The falcon clings with the utmost perseverance, nor ever leaves its prey till it falls; upon which the hunters from behind approaching, take up both, and reward the falcon with the blood of the spoil. They also taught the young ones, by applying them to the dead animal's throat, and accustoming them betimes to fix upon that particular part; for if it should happen that the falcon fixed upon any other part of the gazelle, either its back or its haunches, the animal would easily escape among the mountains, and the hunter would also lose his falcon. They sometimes also hunt these animals with the ounce, called also the cheetah. This carni-

vorous and fierce creature being made tame and domestic, generally sits on horseback behind the hunter, and remains there with the utmost composure, until the gazelle is shewn; it is then that it exerts all its arts and fierceness; it does not at once fly at its prey, but approaches slyly, turning and winding about until it comes within the proper distance, when all at once it bounds upon the heedless animal, and instantly kills it, and sucks its blood. If, on the other hand, it misses its aim, it rests in its place, without attempting to pursue any farther, but seems ashamed of its own inability.

There is still another way of taking the gazelle, which seems not so certain, nor so amusing as either of the former. A tame gazelle is bred up for this purpose, which is taught to join those of its kind, wherever it perceives them. When the hunter, therefore, perceives a herd of these together, he fixes a noose round the horns of the tame gazelle, in such a manner, that if the rest but touch it, they are entangled; and thus prepared, he sends his gazelle among the rest. The tame animal no sooner approaches, but the males of the herd instantly sally forth to oppose him; and, in butting with their horns, are caught in the noose. In this way, both struggling for some time, they fall together to the ground; and, at last, the hunter coming up, disengages the one, and kills the other. Upon the whole, however, these animals, whatever be the arts used to pursue them, are very difficult to be taken. As they are continually subject to alarms from carnivorous beasts, or from man, they keep chiefly in the most solitary and inaccessible places, and find their only protection from situations of the greatest danger.

GENTLES. See **BAITS**.

GIFT OF GOING is a phrase which implies a horse's possessing a much greater portion of speed in action, particularly in trotting, than could well be expected from his shape and external appearance. When a horse is shewn for sale, having little to recommend him, rough in his coat, low in condition, awkward in shape, and without a single point of attraction, if he can scramble along at the rate of twelve or thirteen miles an hour, he is then said to possess the *gift of going*.

GIGS or FLAPS. Little swellings or bladders, with black heads, that grow in the mouth of a horse, on the inside of the lips and palate, which will sometimes appear as big as a walnut, and are so painful, that the horse will let his meat fall out of his mouth, or, at least, keep it

in his mouth unchewed. Gigs are cured by slitting them open with a lancet, and washing them afterwards with vinegar. But when they degenerate into what are called cankers, which are known by little white specks that spread into irregular ulcers, the best method then is to touch them with a small flat cautery, till the spreading is stopped, and to rub the sores three or four times a-day with ægyptiacum and tincture of myrrh. When, by this dressing, the sloughs are separated, they may be washed with a sponge dipped in alum, green vitriol, or sublimate water, if they continue to spread; or with a tincture made by dissolving half an ounce of alum, and two ounces of honey, in a pint of tincture of roses. Either of these will cure them, and are very useful in most disorders of the mouth.

GILLAROO TROUT, THE, is generally from twelve to eighteen, but increases so high as thirty pounds weight; these fish are esteemed for their fine flavour, which is supposed to exceed that of any other trout; their make is similar to the common, except being thicker in proportion to their length, and of a redder hue both before and after being dressed. The gillaroo is found in some of the

ivers in Ireland, is remarkable for having a gizzard resembling that of a large fowl or turkey; it is usual to dress the gizzards only, which are considered as very favourite morsels.

The celebrated John Hunter made this curious fish an object of his attention, and an extract from his observations upon it may not improperly here find a place: he states, that "one of the digestive organs of this trout being so very extraordinary as to have given name to it, is to be looked upon as its distinguishing characteristic: to throw some light upon the question, whether its resemblance to a gizzard be such as to render the appellation proper, it is expedient to state some general facts. Food of animals may be divided into two kinds; what does require mastication to facilitate digestion, and what does not: all animal food is of this latter kind; but grain, and many other substances which serve for aliment, require a previous grinding or trituration; and therefore animals which live on such food are provided with organs for that purpose. Such birds as live upon food, to digest which trituration is indispensable, have the power of masticating and digesting united in one part, the gizzard, which is for that end peculiarly constructed. In granivorous birds, therefore, a single organ answers both for the teeth and stomach of granivorous quadrupeds, (who have two powers distinct from each other, to masticate and digest their food; first being executed by teeth of a particular form, which serve as so many grindstones, for reducing their food to powder, before it is conveyed into the stomach for digestion) and consequently the gizzard alone of birds will point out the food of the species as clearly as the teeth and stomach together do in those animals in which the two offices of mastication and digestion are not joined together in the same part.

As it appears then to be the difference of the stomachs only that fits birds for their different kinds of food, it is evident that every gradation of stomach must be found among them, from the true gizzard, which is one extreme, to the mere membraneous stomach, which is the other; since the food of the various species is from the hardest grain to the softest animal matter. The two extremes above-mentioned are easily defined, but they run so into each other, that the end of one and beginning of the other are quite imperceptible: similar gradations are observed in the food, the kinds suited to the two extremes, mixing together in different proportions, adapted to the intermediate states of the stomach.

A true gizzard is composed of two strong muscles placed opposite, and acting upon each other, as two broad grindstones. These muscles are united at their sides by a middle tendon, into which the muscular fibres are inserted, and which forms the narrow anterior and posterior sides of the flat quadrangular cavity, wherein the grinding is performed: the upper end of this cavity is filled up by the termination of the œsophagus, and the beginning of the intestine; the lower end consists of a thin muscular bag, connecting the edges of the two muscles together. The two flat lateral sides of the grinding cavity are lined with a bony substance, similar to a hard and thick cuticle.

GILLAROO

The two large muscles may be considered as a pair of jaws, whose teeth are taken in occasionally, being small rough stones or pebbles which the animal swallows; and from the feeling on the tongue it can distinguish such of them as are proper from those that are smooth, or otherwise unfit for the purpose, which last it instantly drops out of its mouth. There are other animals which masticate their food in their stomach, but their teeth are by nature placed there: crabs and lobsters are thus formed. Some birds with gizzards have also a craw or crop, which serves as a reservoir and for softening the grain; but as all of them have not this organ it is foreign to our present purpose.

The gradation from gizzard to the stomach is made by the muscular sides becoming weaker and weaker, and the food keeps pace with this change, varying gradually from vegetable to animal; and we find that in granivorous animals of all sorts there is an apparatus for masticating their food, although of various kinds and differently placed." After describing the manner of carnivorous quadrupeds and birds taking and digesting their food, Mr. H. thus proceeds:—"Of all the fish I have seen, the mullet is the clearest instance of the structure of its stomach approaching to that of birds; its strong muscular stomach being evidently adapted, like the gizzard of birds, to the two offices of mastication and digestion. The stomach of the gillaroo trout holds the second place; but still neither of these stomachs can be justly ranked as gizzards, since they want some of the most essential characters; viz. a power and motion fitted for grinding, and the horny cuticle. The stomach of the gillaroo trout is, however, more circumscribed than that of most fish, and endued with sufficient strength to break the covering of small shell-fish, which will most probably be best done by having more than one in the stomach at a time, and also by taking large and smooth stones into it, which will answer the purpose of breaking, but not so well as that of grinding; nor can this fish's stomach possess scarcely any power of grinding, as the whole cavity is lined with a fine villous coat, and whose external surface every where appears to be digestive, and by no means fitted for mastication.

The stomach of the English is exactly of the same species with that of the gillaroo trout, but its coat is not so thick by two-thirds: (the English trout swallows shell-fish, and also pretty large smooth stones, which serve as shell breakers;) how far this difference in thickness of the stomach avails to make a distinct species, or barely a variety of the same, is only to be determined by experiment, which might be tried by putting some gillaroo trout, male and female, into water in which there are no trout, and observing if they continue unaltered.

The œsophagus in the trout is considerably longer and smaller than in any other classes of fish. The intestines are similar to those of the salmon, herring, sprat, &c. the pancreas is appendiculated (this name to the pancreas Mr. H. has adopted from its appearance). The teeth shew them to be a fish of prey. So far, therefore, (con-

cludes Mr. Hunter) as warranted by analogy, we must not consider the stomach of this fish as a gizzard, but as a true stomach."

Respecting the gillaroo trout, Mr. Pennant has the following remarks: "The stomachs of the common trouts are uncommonly thick and muscular; they feed on the shell-fish of lakes and rivers, as well as on small fish; they likewise take into their stomachs gravel or small stones, to assist in comminuting the testaceous parts of their food. The trouts of certain lakes in Ireland, as those of the county of Galway, and some others, are remarkable for the great thickness of their stomachs, which, from some resemblance to the organs of digestion in birds, have been called gizzards: the Irish name the species that has them, gillaroo trouts, and their stomachs are sometimes served up to table, under the former appellation. It does not appear to me (continues Mr. P.) that the extraordinary strength of stomach in the Irish fish should give any suspicion, that it is a distinct species: the nature of the waters might increase the thickness; or the superior quantity of shell-fish, which may more frequently call for the use of its comminuting powers than those of our trouts, might occasion this difference. I had an opportunity of comparing the stomach of a great gillaroo trout with a large one from the Uxbridge river; the last, if I recollect, was smaller, and out of season, and its stomach (notwithstanding it was very thick) was much inferior in strength to that of the former; but on the whole (says Mr. P.) there was not the least specific difference between the two subjects." From the foregoing investigations the gillaroo does not seem to constitute a new species of trout.

GIMCRACK. A grey horse, foaled in 1760, bred by G. Elliot, Esq. of Murrell-Green, Hampshire, sold to Mr. Green, and was afterwards the various property of Mr. Wildman, Lord Bolingbroke, Count Lauraguais, Sir C. Bunbury, and Lord Grosvenor.

Gimcrack was got by Cripple; his dam, Miss Elliot, by Mr. GriseWOOD's Partner; grandam (bred by Mr. Crofts) by Partner; great-grandam by the speedy stallion Bloody-Buttocks, a daughter of Old Greyhound, out of Brocklesby Betty.

At Epsom, May 31, 1764, Gimcrack won 50l. for four-year olds, 8st. 7lb. beating Mr. Everett's Antelope, Mr. Aldridge's Britannicus, and distanced three others:—at starting, Britannicus the favourite. At Guildford, June 15, he won 50l. weight for age, four-mile heats, beating Mr. Blake's Hazard, by Oronooko, 5 years old; Mr. Tate's Punch, by Snap, 6 years old; and Mr. Hawes's Lass of the Mill, 4 years old. At Winchester, July 12, he won 50l. for four-year olds, 8st. 7lb. beating Lord Castlehaven's Sappho, who was drawn after the first heat. At Bedford, August 7, he won 50l. give-and-take, beating Mr. Vernon's Rose, by

South, 4 years old:—Rose won the first heat, and Gimcrack the second, after which Rose was drawn. At Barnet, August 14, he won 50l. give-and-take, (carrying 7st. 7lb. 4oz.) beating Mr. Stoke's Lily, by Dormouse, 6 years old, 8st. 12lb. and Mr. Castle's Ladies' Pad, aged, 8st. 8lb. 4oz. Sir C. Eversfield's Matilda, 5 years old, 8st. 5lb. 14oz. and Mr. Carter's Young Driver, 6 years old, 9st. 4oz. At Reading, August 28, he won 50l. for four years old colts, 8st. 7lb. and fillies, 8st. 4lb. beating Mr. Hawes's Ladythigh, by Merlin; Lord Castlehaven's Sappho, and Lord Portmore's Brown Surrey. And at Burford, September 5, he won 50l. for four-year olds, 8st. 11lb. beating Sir J. Dashwood's Merlittina, by Merlin, &c. which was the seventh time of his winning, and only times of his starting that year. Gimcrack was sold to Mr. Wildman; and at Newmarket first Spring meeting, 1765, he won 50l. for horses rising five years old, 8st. 7lb. R. C. beating Mr. Vernon's Prophet, Sir J. Lowther's Treasurer, and Sir John Moor's South-West. Gimcrack was sold to Lord Bolingbroke; and in the same

meeting, at 8st. he received 250gs. forfeit from the Duke of Cumberland's Selim, 7st. 2lb. B. C. In the second Spring meeting, Gimcrack, 7st. 4lb. beat Mr. Pantons's Rocket, aged, 8st. 7lb. B. C. 1000gs.—at starting, 6 to 4 on Rocket. At Newmarket in July, he beat Sir J. Lowther's Ascham, 6 years old, 7st. 10lb. each, B. C. 1000 gs.—at starting, 5 to 4 on Gimcrack. At Newmarket in October, he was beat (for the first time) by Bay Malton, allowing him 7lb. In the second October meeting, Gimcrack, 8st. beat the Duke of Cumberland's Drone, 4 years old, 6st. 7lb. B. C. 500gs.—at starting, 3 to one on Gimcrack. He was sold to Count Lauraguais; and in 1766, Gimcrack ran a match in France of 22 miles and a half within the hour, for a very considerable sum :—after which, he was brought into England, and at Newmarket in April, 1767, Gimcrack was second to the Duke of Kingston's Tyrant, 50l. beating Commodore, Beau, Virago, Flylax, Pop, South-East, Bounce, and Cripple. At Wisbech, June 5, he won 50l. give-and-take, (carrying 9st. 1lb. 12oz.) beating, at three heats, Mr. Wensley's Cub, 6 years old, 9st. 1lb. 12oz. and Mr. Blank's Trifle. At Ascot Heath, June 25, he won 50l. give-and-take, beating at three heats, Mr. Crosoer's Scrip, aged; Lord Orford's Mite, 5 years old, and two others. At Marlborough, July 1, he won 50l. for aged horses, 8st. 7lb. beating Mr. Bell's Selim, by Bajazet; and Mr. Quick's General :—6 to 4 on Gimcrack. At Wells, July 30, he won 50l. give-and-take, beating Mr. Bedford's Damon, and distanced two others. At Epsom, May 13, 1768, he won 50l. give-and-take, beating Mr. Merriot's Sloven, aged; Mr. Quick's Droll, 6 years old; and Mr. Strode's Ladythigh. At Ascot Heath, June 7, he won 50l. for six-year olds, beating Mr. Meadley's Nabob, 6 years old; and Mr. Larkin's Sloven, 6 years old :—at starting, 5 to 4 on Nabob. At Salisbury, June 30, he won the city silver bowl, with 30gs. added, 10st. beating Mr. Bevis's Selim, by Bajazet, aged; Mr. Strode's Leopardess, aged; and Mr. Adams's Gift, aged. Gimcrack was sold to Sir Charles Bunbury; and at Odsey, November 1, he won 50l. for five-year olds, 8st. six-year olds, 8st. 10lb. and aged, 9st. 4lb. beating, at three heats, Mr. Ellis's Spot, aged; Mr. Merriot's Juliet, 5 years old; Lord Farnham's Amazon, 5 years old; Mr. Strode's Ladythigh, 5 years old; Mr. M'Anella's Bar-

ley Corn, 5 years old, &c. At Newmarket, March 13, 1769, Gimcrack, 9st. won a Sweepstakes of 50gs. each, D. C. beating Mr. Vernon's Hermione, 5 years old, 7st. 9lb. and Lord Farnham's Amazon, 5 years old, 7st. 6lb. March 27, he won 50l. for six-year olds, 8st. 7lb. and aged, 9st. R. C. beating Lord Grosvenor's Cardinal Puff, aged; Lord Rockingham's Bay Malton, aged; Mr. Shafton's Hemp, 6 years old; Mr. Pratt's Phoenix, 6 years old; the Duke of Grafton's Bashful, 6 years old; Lord Farnham's Admiral, aged; Mr. Blake's Presto, 5 years old; Mr. Vernon's Chalfont, 5 years old; and Mr. Cross's Toper, aged : after which, Gimcrack was sold to Lord Grosvenor for 1200gs. and it was said, that a premium of 500gs. was immediately offered for him. March 29, Gimcrack, 9st. beat Mr. Vernon's Baber, 4 years old, 7st. 4lb. B. C. 300gs. April 17, Gimcrack, 9st. beat Lord Rockingham's Jack-O ! 4 years old, 7st. B. C. 300gs.—7 to 4 on Gimcrack. At Newmarket, in April, 1770, he beat Lord Rockingham's Pilgrim, 10st. each, B. C. for 200gs. and the whip :—at starting, 5 to 2 on Gimcrack. At Newmarket, in April, 1771, he won 50l. for six-year olds, 8st. 7lb. and aged, 9st. R. C. beating Sir C. Bunbury's Bellario, aged; Lord March's Sportsman, 5 years old; Lord Bolingbroke's Chalfont, aged; Lord Orford's Hemp, aged; Mr. Wentworth's Myrmidon, 6 years old; Lord Farnham's Guardian, 6 years old; Mr. Cox's Tetotum, 6 years old; and Lord Rockingham's Tantrum, aged :—at starting, 2 to one on Bellario, and 6 and 7 to 1 against Gimcrack. This was the last time of his running.

Gimcrack was beaten ten times, viz.—at Newmarket in 1765, by Bay Malton; at Newmarket in 1767, by Tyrant; at Wantage, (same year) by Mr. Brereton's Otterley, &c. and at Odsey, by Tortoise, beating Favourite, Coriolanus, &c. at York in August, 1768, by Pilgrim, Chatsworth, Tortoise, and Beaufremont; and at Newmarket in October following, by Guardian and Icarus; at Newmarket in April, 1769, by Cosmo; at York in August following, by Chatsworth and Tortoise, beating Morwick-Ball, Bay Malton, and All-fours; at Newmarket in May, 1770, by Bellario, Nabob, Bashful, and Snipe; also, at Newmarket in October following, by Bellario and Petruchio, beating Chalfont, Fabius, and Pactolus.

Gimcrack measured about 14 hands one-fourth of an inch.

Gimerack was a stallion at Oxcroft-Farm, near Newmarket, in 1772, at 25gs. and 5s.; in 1773, he was stunted to thirty mares, at 30gs. each, and 5s.; in 1774, 1775, and 1776, at 30gs. and 5s.; in 1777, at 25gs. and 5s.; in 1778, at 20gs. and 5s.; in 1779, at 10gs. and 10s. 6d.—He was sire of Lord Grosvenor's Little Gim, Grey Robin, Scramble and Jemima; of Sir C. Bunbury's Knick-Knack and Comedy; of Lord E. Bentinck's Vestris; of Mr. Peirse's Phaeton; Sir H. Harpur's Maiden; Sir J. Lade's Medley; Sir H. Featherstone's Surprise, &c. He served but few mares.

GIRLE. A roebuck of two years old.

GIRTHS OF A SADDLE. The strong web, or canvas straps, which being buckled under a horse's belly, serve to fix the saddle. It is a common error to girth a horse too strongly, not only when he is to be mounted, but even when standing clothed in the stable.

GIVE-AND-TAKE PLATES are those where the horses carry weight according to their height, by the regular standard of four inches to a hand. The fixed rules for a give-and-take are, that horses measuring fourteen hands, are each to carry nine stone; above or below which height, they are to carry seven pounds, more or less, for every inch they are higher or lower than the fourteen hands fixed as the criterion.—Example: a horse measuring fourteen hands, one inch and a half, will carry nine stone, ten pounds, eight ounces; a horse measuring thirteen hands, two inches and a half, will carry only eight stone, three pounds, eight ounces; the former being one inch and a half above fourteen hands, the other one inch and a half below it. The weight is, therefore, added or diminished, by the eighths of every inch, higher or lower weight in proportion; and these plates were so exceedingly popular some few years since, that very few country courses were without one of this description.

GLANDERS. We quote the following from the elegant and scientific Lectures of Mr. Percivall:—"Professor Coleman makes a division of glanders into two forms or species: *acute* and *chronic*. That species is *acute*, which, like other acute diseases, proceeds regularly through its course, and ends in death; that *chronic*, which, so long as it remains so, will not destroy the animal.

Acute Glanders may be defined to be, a specific inflammation and ulceration of the schneiderian membrane, more par-

ticularly of that part of it covering the septum: that appearing to possess a higher degree of susceptibility. It is generally attended with tumefaction of the submaxillary lymphatic glands: which tumour is simply the consequence of irritation.

The disease has been long known to be contagious—to be communicable through the medium of contaminated stables, and by inoculation; hence it has been concluded that it had no origin but contagion.

Those who are most conversant in the habits and diseases of horses, now know, that glanders, although demonstrably contagious, much more frequently arises from other causes: it is a disease that rarely or never spreads among horses at pasture, though a glandered subject may have been grazing among them; for, we learn from experiment, that although the disease is communicable by contact, the poisonous matter must be applied to a part bare of hair, and that, even then, the chances are in favour of the animal escaping infection unless the part has previously been, or happen to be in the act, abraded.

So far from contagion being the common cause of glanders, the Professor estimates that not one horse in a thousand, or even in ten thousand, so receives the disease. The poison of glanders is bred and diffused in an atmosphere rendered impure by repeated respiration, and by gaseous impregnations from the dung, urine, and perspiration, emitted in hot and foul stables. No vital being, neither animal nor vegetable, can maintain life in the total absence of pure air; and, according as an animal is from nature habituated to purity, so, generally speaking, it would seem that he suffers from atmospheric contamination.

The horse is an animal destined by nature to breathe an atmosphere of the purest kind; in proof of the salubrity of which to him, suffer him to remain in his native fields, and he will live long and ail nothing. But, bring him once into a state of domesticity, place him in a confined situation, in which he is compelled to breathe air that has been already respired, not only by himself but perhaps by other horses also, air impregnated with the exhalations from the urine, dung, and perspiration, and you sacrifice him a victim to malignant and fatal maladies. And none of our domestic animals, no more than horses, can tolerate this with impu-

nity. Therefore it is, that, in the degree in which a stable is foul and heated, from want of ventilation, we find its inhabitants the subjects of glanders, farcy, ophthalmia, &c. We seldom receive these cases from gentlemen's stables, because in general they are well-constructed, and kept clean, and do not contain many horses; but in collieries, breweries, post-houses, coach establishments, &c. where the stables are filthy from the dung and urine which stagnate in cavities in the pavement, for want of proper sewers to carry them off, and where the men are suffered to add to the mischief by plugging up every air-crevice they can find, we are continually witnessing the ravages of these very formidable diseases. The Professor was first led to adopt this notion of the spontaneous origin of glanders and farcy from an occurrence in our cavalry service which came to his knowledge. Many years ago (I believe about 1796) there was an extensive encampment upon Dover heights, from which the horses could not be removed until the autumnal season was far advanced, in consequence of the stables intended for their reception not being in a state of readiness: now, the stables were newly erected ones, notwithstanding which, great numbers of these horses, though previously in perfect health, soon after entering them became diseased; the greater proportion contracted grease, but several were attacked with glanders and farcy. He has since also received peculiarly satisfactory evidence of this in two memorable instances, in which stables which were hot and foul, and had from time to time turned out several glandered horses, were rendered equally salubrious with others adjoining them by proper ventilation and attention to cleanliness.

We now come to the relation of that celebrated experiment of the Professor's, by which, not only the contagious, but the constitutional, nature of glanders is proved beyond all doubt and idle speculation—that experiment which goes to disprove the assumption of Mr. Hunter, that the blood itself was never diseased. Of a horse afflicted with acute glanders, the Professor laid bare the carotid artery and jugular vein of the same side, and around each vessel placed a ligature. A pipe, furnished with a stop-cock, was then inserted and fastened into the artery; which was made to communicate, through the medium of a tube (a ureter, I believe) with another pipe introduced into the jugular vein of an ass: this animal hav-

ing been previously bled until he fell from exhaustion. In this manner, blood was conducted from the artery of the horse into the vein of the ass until the latter shewed every sign of perfect resuscitation. A circumstance occurred, however, in the revival of the ass, which, though it did not affect the issue of the experiment, may serve as a warning to future experimentalists; and that was, that, in consequence, it was thought, of transfusing more blood than was requisite, the ass appeared to be puffed out or swollen all over the body; this, however, was relieved in the course of four or five days, in which time the animal became glandered in a most violent degree; in confirmation of this, other asses were inoculated from this one, and they all unexceptionably shared the same fate. The loss of blood sustained by the horse was not sufficient to take away life.

Acute glanders, as was said before, consists in a specific inflammation and ulceration of the membrane lining the nose; by *specific* is meant, an inflammation not attended with the usual phenomena. If the inflammation could be as well recognised by any characteristic appearance as the ulceration is, then the horse ought to be pronounced glandered prior to the supervention of the ulcerative stage.

Glanders is not so prevalent in the summer as in the winter season; and it has, in several instances, been known to be epizootic, particularly when horses brought from camp or other external situations have been returned into warm and unventilated quarters. If precautions were taken to properly ventilate stables, the disease might be altogether eradicated. In further proof of the disease originating without contagion, we have instances of glanders breaking out among horses that have been embarked in a perfectly healthy condition on board of ships entirely new. In the expedition to Quiberon, the horses had not been long on board of the transports before it became necessary to shut down the hatchways: the consequences of this were, that the horses were almost suffocated with heat, and that almost all of them disembarked either glandered or farcied.

The acute glanders is the same disease, in regard to the nature of the poison, as farcy, and chronic glanders. Acute glanders hardly ever proves fatal without farcy making its appearance before death; on the other hand, farcy rarely or never of

itself puts an end to life, it being superseded commonly by acute, sometimes by chronic, glanders.

Chronic Glanders commonly affects but one side of the head ; if, therefore, a discharge makes its appearance from one nostril alone, that of itself is strong presumptive evidence of the presence of this disease. This partial flux cannot come from the lungs, for, if it did, the other nostril would discharge too ; it must have its issue from some part anterior to the larynx, consequently it can have no other source but the membrane of the nose or that portion of it lining the sinuses. Should it come from the nose, the membrane, most likely, will have a redder aspect upon that side of the septum than upon the opposite, or there may be a disposition to, or actual, ulceration. If the nasal discharge is considerable, and, at the same time, the animal to all appearances is in the enjoyment of good constitutional health, that is a circumstance which should serve to strengthen your suspicions : people cannot conceive how it is a horse can have glanders so long as he eats and drinks, and does his work like one in perfect health ; this very fact, however, I repeat, is corroborative of an unfavourable prognosis. Another circumstance to be attended to, is, that the nasal flux has little or no fœtor : offensiveness of breath is pretty certain evidence that this disease is not present ; not but what the two may exist in the same subject, but, fetid breath commonly proceeding from the lungs, and this chronic discharge coming from the sinuses of the head, the one is not in any way necessarily connected with the other. In glanders, the nostrils are contracted and gummed with inspissated discharge ; but the flux is not offensive, or, at least, to the same degree as pulmonary fœtor is. Again, in glanders, generally speaking, there is on the same side from which the discharge comes, a defined swelling of the submaxillary lymphatic glands, which is attached closely and immovably to the side of the jaw : if it is a tumour of considerable size, one that is diffused and extends inwardly, or one that is very movable under the fingers, most likely it is not lymphatic, and therefore not connected with this disease. So far as the Professor's observation has gone, no such glandular swelling happens in common inflammation. In chronic glanders, then, the general health, appetite, spirits, &c. remain unimpaired ; there is simply a discharge from one nostril,

which is unaccompanied by fœtor, and a circumscribed immovable tumor under the jaw on the same side. In some cases, however, the flux comes from both nostrils ; here, commonly, both sets of glands are tumefied, the nature of which swellings will serve to direct the diagnosis ; in addition to which, most probably, the animal's health continues good, and the discharge is not offensive. But, if cough is present with such a discharge, the submaxillary tumefaction uniformly diffused between the sides of the jaw, and there are feverish symptoms and evident impairment of the general health, the lungs are probably in this case the seat of disease. Still, in order that we may be certain about the existence of chronic glanders, we have no occasion to implicitly rely even upon these signs ; for we may at once decide the point by the test of practical investigation. We have only to perforate (with a spill-gimblet) the frontal sinuses, and inject some clean tepid water into them : should the sinuses be healthy interiorly, the fluid will run from the nose either limpid as it is thrown in, or merely be tinged with blood ; whereas, in a case of disease there, the water will carry down with it the matter lodged in the cavities. It is not uncommon, in this disease, to observe a horse discharging profusely for several days and then suddenly cease running altogether : this arises either from inspissation of the matter collected, or from the effusion of adhesive matter, within the sinus, which settles at the bottom of the cavity and plugs up the aperture by which it communicates with the chamber of the nose. During the interval of suspension no sign of disease remains but the submaxillary tumefaction ; there is no discharge, and consequently there can be no source of contagion : but, the collection of matter continually augmenting, at length the plug is forced out, and the flux returns with more virulence than ever. In Smithfield, it used to be a common cheat to sell a horse having this disease, for a sound one, the trick consisting in stopping up the nostril of the affected side with a piece of sponge, which, of course, received and imbibed the discharge.

Though we have no specific remedy for chronic glanders, no more than we have for acute, the Professor has seen more cases of recovery from this than from the latter disease. When the discharge early in this affection becomes profuse, and continues long so, it will end, every now

and then, in a spontaneous cure ; at other times the flux will persist and run for years, and the horse, so long as the disease remains chronic, maintain his full health. Many horses of this description are to be found, in various parts of the country, working in road-waggon, brick-carts, agricultural machines, &c. &c. nevertheless, the disease is not only incurable by art, but is contagious ; the matter emitted from the nose has the property of propagating by contact either acute glanders or farcy, or even both.

With regard to remedies for glanders, either in its acute or chronic form, the Professor has nothing to offer. He has prescribed, by way of experiment, almost or quite all the mineral and known vegetable poisons : preparations of arsenic, antimony, copper, zinc, mercury, &c. hellebore, aconitum, digitalis, hyoscyamus, cicuta, belladonna, &c. &c. have

been, in various condemned subjects, internally administered ; but all without any specific or curative effect on this awful and obstinate malady."

GLEAD. A large kind of hawk, frequently seen on the moors or fens, where it breeds and forms its nest on the ground. It is very destructive to young grouse ; and will also seize goslings, young chickens, &c. They may be caught in traps baited with carrion, or part of a rabbit perhaps would be more tempting. They may be thus taken also with lime twigs.

GNAWPOST was a country plate horse of some celebrity, winning several for some years in succession. He was bred by Mr. Shafto ; was foaled in 1767 ; and got by Snap, out of Miss Cranbourne, who was got by the Godolphin Arabian, and bred by the then great Duke of Cumberland.

GODWIT, THE is taken at the same time, and in the same manner, with the ruffs and knots ; and when ready for market, each sells for five shillings and upwards. In the spring and summer it resides in the fens and marshes, where it rears its young, and lives upon small worms and insects. During these seasons it only removes from one marsh or fen to another ; but when the winter sets in with severity, (for the godwit continues with us the whole year) it seeks the salt-marshes, and the sandy shores by the sea-side, which for a great space are uncovered at the ebbing of the tide, where it walks like the curlew, and feeds upon the insects which there abound.

This bird is rather bigger than the woodcock, being in length from sixteen to eighteen inches, and between the tips of the extended wings twenty-eight inches broad. The weight twelve ounces. Bill four inches long, bending a little upwards, black at the point, gradually softening into a pale purple towards the base ; the under mandible the shortest ; the tongue sharp : the nostrils oblong ; and the ears large. A whitish streak passes from the bill to the eye ; the head, neck, and upper parts, of a dingy reddish brown, each feather marked down the middle with a dark spot. The fore part of the breast is streaked with black : in the female the throat and neck are grey or ash-coloured ; the belly, vent, and tail, are white, the latter regularly barred with black ; the six prime quill feathers are black, edged on the interior sides with reddish brown. In some birds the rump is white, and the chin nearly so ; the legs are not very long, naked to the middle of the second joint, and are generally dark coloured, inclining to a greenish blue.

The godwit is met with in various parts of the continent of Europe and Asia, as well as in America ; at Hudson's Bay, the red godwit, in particular, is so plentiful, that Mr. Atkinson, long resident at York Fort, killed seventy-two at one shot !

GODOLPHIN ARABIAN. A brown horse, foaled in 1724, and about 15 hands high, was first the property of Mr. Coke, who gave him to Mr. Roger Williams, keeper of St. James's Coffee-House, by whom he was presented to the Earl of Godolphin, in whose possession he continued, as a private stallion, till his death.—He was teaser to Hobgoblin in the years 1730 and 1731, and on the latter refusing to cover Roxana, she was put to the Arabian, and from that cover produced Lath; the first horse that the Godolphin Arabian got. To those who are thoroughly conversant with the Turf, it would be superfluous to remark, that he undoubtedly contributed more to the improvement of the breed of horses in this country, than any stallion before or since his time: It would be equally unnecessary to enumerate his get; but to those who are less acquainted with the annals of racing, suffice it to say, that he was sire of Cade, Regulus, Blank, Babram, Bajazet, and Old England; and may serve as a proof of the remark, that every superior horse of the present day partakes of his valuable blood.—He died at Hogmagog, in 1753, in the 29th year of his age, and was buried in a covered passage, leading to the stable, with a flat stone over him, without any inscription.—In regard to his pedigree, from all that can be learned, none was brought into England with him, as it was said, and generally believed, that he was stolen.—It may appear trifling to notice the extraordinary affection shown by this Arabian to a cat, who lived in his stable; and which was more particularly manifested by his extreme inquietude on the death of that animal.

GOLDFINDER. A bay horse, foaled in 1764, bred by John St. Leger Douglas, Esq. of Spring Fields, Essex, and sold to Jenison Shafto, Esq.

Goldfinder was got by Snap; his dam by Blank; grandam (Lord Bolingbroke's Nettle's dam) by Regulus; great-grandam by Lord Lonsdale's bay Arabian, out of the Duke of Bolton's Bonnylass, the dam of Merry-Andrew, &c.

At Newmarket first spring meeting, April 5th, 1768, Goldfinder won a sweepstakes of 200gs. each, h. ft. (4 subscribers) 8st. 7lb. each, B. C. beating Mr. Vernon's Galba, by Sweepstakes, dam by Cade; and Mr. Fortescue's br. colt, by Old England, out of Bajazetta:—At starting, 5 to 4 on Galba. In the second spring meeting, April 29th, he won the Ascot stakes, of 25gs. each, 8st. 7lb. each, B. C. beating Sir John Moore's Baber, Lord Grosvenor's Bodfach, Mr. Vernon's Flush, the Duke of Ancaster's Jethro, Lord Rockingham's Monkey, the Duke of Bridgewater's Hercules, and Lord Gower's bay colt, by Tearing Robin. In the first October meeting, (Monday) he won a subscription of 200gs. each, h. ft. (8 subscribers) 8st. 10lb. each, B. C. beating

Lord Ossory's Fabius, Lord Grosvenor's Ancient Pistol, the Duke of Grafton's Baber, Lord Bolingbroke's Sejanus, and the Duke of Ancaster's Hostage:—At starting, 5 to 4 on Sejanus.—(Tuesday) Goldfinder, 8st. 7lb. received forfeit from Sir John Moore's bay filly, own sister to South-East, 8st. 2lb. B. C. 300gs. h. ft. In the second October meeting, (Thursday) he won the Contribution Stakes of 5gs. each, (20 subscribers, a non-subscriber paying 30gs. entrance); four-year olds, 7st. 7lb. five-year olds, 8st. 9lb. B. C. beating Lord Ossory's Metaphysician, 5 years old; Lord Bolingbroke's Tartuffe, 5 years old; Mr Strode's Ladythigh, 5 years old (30gs. entrance); and Lord Farnham's Cobbler, 4 years old. In the first Spring meeting, (March 31st) 1769, he won the 150gs. for horses, &c. rising 5 years old, 8st. 10lb. B. C. beating Lord Grosvenor's Ancient Pistol, Mr. Vernon's Flush, the Duke of Bridgewater's Darby, by Blank; and the Duke of Grafton's Charmer, by Blank. In the first October meeting, (Tuesday) he won a sweepstakes of 200gs. each, p. p. and the cup, (10 subscribers) for four-year olds, 7st. five-year olds, 8st. 5lb. six-year olds, 9st. 3lb.

and aged, 9st. 10lb. B. C. beating the Duke of Ancaster's Jethro, 5 years old; Sir C. Bunbury's Bellario, 6 years old; Mr. Vernon's Marquis, aged; Sir L. Dundas's A-la-greque, 6 years old; and Lord Rockingham's Cosmo, 5 years old :— [Lord Grosvenor's bay Halkin, 4 years old; Mr. P. Blake's Leader, 5 years old; Lord Bolingbroke's Sejanus, 5 years old; and Lord Barrymore's Thumper, aged, paid forfeit.]—At starting, 2 to 1 against Jethro, 5 to 2 against Goldfinder, 4 to 1 against Bellario, 5 and 6 to 1 against Marquis, 8 to 1 against A-la-greque, and the same against Cosmo.—On the Saturday, he won a subscription of 50gs. each, p. p. (6 subscribers) for five-year olds, 9st. each, B. C. beating the Duke of Ancaster's Jethro :—5 to 1 on Goldfinder. In the second October meeting, (Tuesday) he received 450gs. compromise from Mr. P. Blake's Leader, by Fearnought, 9st. each, B. C. 500gs. p. p.—On the Wednesday, he walked over for the 150gs. for five-year olds, 8st. 10lb. B. C.—And on the Friday, he walked over for the Contribution Stakes of 5gs. each, (20 subscribers) for all ages, B. C. In the second Spring meeting, 1770, Goldfinder walked over for a subscription of 25gs. each, (8 subscribers) for all ages, B. C.—On the Tuesday, in the first October meeting, he walked over for the cup, for all ages, B. C.—But on the day following, he broke down in his exercise, otherwise he was intended to have started for the King's plate against Eclipse.

GOOSE, THE BERNACLE. The bill of this bird is very short and black, crossed with a flesh-coloured mark on each side. Part of the head, the chin, throat, under-parts, and upper tail-coverts, are white; and the rest of the head and neck, and the beginning of the back, are black. The thighs are mottled. Round the knee, the feathers are black; and the lower feathers of the back are the same, edged with white. The wing-coverts and scapulars are blue-grey; the ends black, fringed with white at the tip. The rump, tail, and legs, are black.

The Bernacle geese are not uncommon on many of the northern and western coasts of this kingdom, in winter; but they are scarce in the south, and only seen in inclement seasons. They leave our island in February, and retire northward to breed.

Of all the marvellous productions which ignorance, ever credulous, has so long substituted for the simple and truly wonderful operations of nature, the most absurd, and yet not the least celebrated, is the assertion of the growth of these birds, in a kind of shell, called *lepas anatifera* (goose-bearing shell), on certain trees on the coasts of Scot-

Goldfinder was a horse of great speed and power; and was *never beat, or ever paid a forfeit.*—He was sold at Mr. Shaf-to's sale, at Newmarket, on Saturday, October 5th, 1771, to Sir Charles Sedley, for 1350gs.; and covered at Nuttal-Temple, near Nottingham, in 1772 and 1773, twenty mares, (&c. besides those of the owner) at 20gs. and 5s.—In 1774 and 1775, thirty mares, (with the owner's) at 20gs. and 10s. 6d.—In 1776 and 1777, forty mares, &c. at 25gs. and 10s. 6d.—In 1778, fifty mares, (with those of the owner) at 20gs. and 10s. 6d.—After the death of Sir Charles Sedley, he was sold for 375gs.; and in 1779, 1780, and 1781, at Cox's Farm, near Micham, Surrey, at 10gs. and 5s.—In 1782, 1783, and 1784, at the same place, at 5gs. and 5s.

Goldfinder died in 1789, aged 25 years.

GOLDFISH. The goldfish are originally natives of China and Japan. About the year 1691 they were first introduced into England, but were not generally known until 1728, when a great number were brought over and presented to Sir Matthew Decker, who circulated them round the neighbourhood of London, from whence they have been distributed to most parts of the country; they have been known to attain the length of eight inches, and in their native place are said to equal the size of the largest herring.

GOLDEN PLOVER. See PLOVER.

GONE AWAY! is a halloo! in fox hunting, when the game breaks from cover, and goes away.

land and the Orkney Islands, or on the decayed and rotten timbers of old ships.

Numerous writers have mentioned and credited these circumstances; one of these, Maier, who has written a treatise expressly on this bird, says, that it certainly originates from shells: and what is, still more wonderful, that he himself opened a hundred of the goose-bearing shells in the Orkneys, and found in all of them the rudiments of the bird completely formed!

GOOSE, THE SOLAND.—See GANNET.

GOOSE, THE WILD. Wild geese inhabit the fens of England; and are supposed not to migrate, as they do in many countries on the continent. They breed in Lincolnshire and Cambridgeshire: they have seven or eight young; which are sometimes taken, and are easily rendered tame.

They are often seen in flocks of from fifty to a hundred, flying at very great heights and seldom resting by day. Their cry is frequently heard while they are quite imperceptible from their distance above. Whether this be their note of mutual encouragement, or only the necessary consequence of respiration, seems somewhat doubtful: but they seldom exert it when they alight in their journeys. On the ground they always arrange themselves in a line, and seem to descend rather for rest than refreshment; for, having continued in this manner for an hour or two, one of them with a long loud note sounds a kind of signal, to which the rest always punctually attend, and rising in a group they pursue their journey with alacrity. Their flight is conducted with vast regularity: they always proceed either in a line a-breast, or in two lines joining in an angle at the middle. In this order they generally take the lead by turns; the foremost falling back in the rear when tired, and the next in station succeeding to his duty.—Their track is generally so high, that it is almost impossible to reach them with a fowling-piece; and even when this can be done, they file so equally, that one discharge very seldom kills more than a single bird.

They breed in the plains and marshes about Hudson's Bay in North America: in some years the young ones are taken in considerable numbers; and at this age they are easily tamed. It is, however, extremely singular, that they will never learn to eat corn, unless some of the old ones are taken along with them; which may be done when these are in a moulting state.

Our common tame goose is nothing more than this species in a state of domestication.

GORGED. The common term for swelled legs, when their enlarged and distended state has been occasioned more by severe and hard work, than the effect of humours originating in a sily or morbid state of the blood. A horse having his back sinews flushed, and legs thickened, so as to go short and stiff in action, but not broken down, is said to be gorged. Having the same appearances from hu-

mours, or a viscosity of the blood, he is then said to be foul, and must be relieved by purgatives or diuretics, assisted by a great deal of hand-rubbing and regular friction. Gorged horses should be blistered, and turned out in time, by which they frequently get fresh again.

GOURDINESS, is another term for swelled legs, but of a different description, implying the kind of dropsical laxity of

of the solids, submitting to pressure, and recovering from its indentation when the pressure is removed. This kind of swelling is a gradual approach to the disorder called grease, at which it will soon arrive, if not counteracted speedily, by such evacuants and alteratives as may be thought most applicable to the case.

GRAINING. A fish about the size of a grayling; but found only in a few of the rivers in Great Britain.

GRASS is that well known produce of the earth, which is the proper food for horses in a state of nature and ease; but not of sufficient nutritive property for horses engaged either in severe or active exertions. Horses taken up from grass, and put suddenly to work, labour under an immediate and perceptible disquietude; the contents of the intestines are soon evacuated in a state of laxity, the frame displays a profusion of foul and foetid perspiration, the body bespeaks its own debility, and the perseverance of a few days demonstrates its emaciation. To horses having been whole months in constant use and work, alternately accustomed to diurnal drudgery, and the routine of the manger, grass, which is conjunctive liberty, must prove a sweet, a comfortable, a proper, and a healthy change: it not only, by its own attenuating property, proportionally alters the property of the blood, but affords, by the comforts of ease and expansion, a renovation of elasticity and vigour to the relaxed sinews, the exhausted spirits, and the battered frame.

Those who turn out horses to grass with with a cough upon them, particularly if from a warm stable in a cold season, may expect to take them up with a short, husky, laboured asthmatic increase of the original complaint, or with tubercles formed upon the lungs; and those who turn out in the winter season, with a hope of obtaining the cure of cracked heels, or swelled legs, may probably take up with a confirmed grease.

GRAVELLED. A horse is said to be gravelled, when broken particles of stones, or small pebbles, are insinuated between the outer sole of the foot and the web of the shoe. The shoe should be tenderly taken off, by one nail at a time, in preference to tearing it off by main and sudden force, (according to custom,) the sole should be well fomented with good hot milk and water, then covered with an emollient poultice of linseed powder, milk, and two table spoonsful of olive oil, letting the same be repeated daily, till the

inflammation has subsided, and the tenderness gone off; when the bottom of the hoof may be hardened by two or three applications of a sponge dipt in vinegar boiling hot before the shoe is replaced.

GRAVELING, THE, *Last-Spring, Shedder, Gravel-Last-Spring, or Sampson*, known by these names in different countries, are found in all the rivers in which the salmon is met with; they are much like the salmon-fry. Various are the opinions respecting them; some contending they are the offspring of the sick salmon, which cannot leave the fresh water, and get to the sea; others, that they are absolutely the produce of the mixed spawn of different kinds of trouts. The baits, and method of angling for them, are the same as used for the salmon-fry.

GRAY, or GREY. See COLOUR.

GRAYLING, The, haunts rapid and clear streams, and particularly such as flow through mountainous countries; it is found in those of Derbyshire, Shropshire, Yorkshire, &c.; in Lapland, where it is very common, the inhabitants use its entrails, instead of rennet, to make the cheese which they get from the milk of the rein-deer. It is a fish of very elegant form; the body is less deep than that of the trout; the head small, with protuberant eyes, whose irides are silvery, speckled with yellow; the mouth is of a middle size, and the upper jaw the largest. The teeth are very minute, seated in the jaws and roof of the mouth, and feel like a fine file; the head is dusky, the covers of the gills are of a glossy green, yet, when in prime perfection, these parts are blackish, (differing in this respect from all other fish, being least beautiful when most in season;) the back is of a dusky green, inclining to blue; the sides of a fine silvery grey, (from which it derives the name;) yet when first taken, they seem to glitter with spangles of gold, and are marked with black spots irregularly placed. The side line is nearly straight; the scales are large, and the lower edges dusky; forming straight rows from the head to the tail, which is much forked; the large dorsal fin is spotted, the other fins are plain; it is rather hog-backed, and, from the nose and belly touching the ground together, it is conjectured that this fish feeds mostly at the bottom. In length, the grayling seldom exceeds sixteen inches. Mr. Pennant mentions one taken near Ludlow, above half a yard long, and weighing four pounds six ounces, as a

rare instance. One was caught near Shrewsbury that weighed full five pounds.

Thymallus is a name bestowed upon the grayling, on account of an imaginary scent proceeding from it similar to that of thyme; the name of umbra, which this fish also bears, has a far better derivation, for it is so swift a swimmer, as to disappear like the passing shadow.

Graylings are in great esteem, and their flesh is white and palatable all the year; they are in season from September to January, (some say are best in October, others in December,) and cannot be dressed too soon after they are caught. Graylings lurk close all the winter, and begin to be very active, and to spawn, in April, or early in May; at which time, and during the summer, near the sides, and at the tails, of sharp streams, they will take all the flies that trout are fond of: they rise bolder than the trout, and if missed several times, will still pursue; yet, notwithstanding they are so sportive after the fly, they are inanimate fish when hooked, and the sides of the mouth are so very tender, that unless nicely treated, when struck, the hold will frequently be broken. In September they retire in shoals to the lower end of still holes, just where the water becomes shallow, where they will take a fly at the top, which should be small; the camlet-fly is perhaps the best, and the hook No. 7 or 8.

When the water is not proper for flies, and they are angled for below the surface, use gentles (which they eagerly bite at,) wasp-grubs, or well scoured worms, as near the ground as possible. The cadbait, and other small insects which hide themselves in husks, they greedily feed upon, and have often been observed rooting up the gravel, and catching at every thing of this kind. Some, in fishing with gentles, have two or three hooks, and fish with them as with an artificial fly; others recommend the bait, or at least the lead above it, to drag on the ground, as they will rather take it there than ascend to do so, and use a running line; while others prefer a cork float, insisting that the grayling is more apt to rise than descend, and on that account keep the bait eight or ten inches from the bottom.

Walton has said the grayling will take a minnow, and his authority is not to be lightly questioned; but anglers of great experience have never found this bait successful. Graylings bite during the whole of cool, cloudy days; but the preferable

times, in spring and summer, are from eight in the morn until twelve, and from four in the afternoon until after sun-set; and from September to January, in the middle of the day.

GREASE. An inflammation and swelling in the heels of horses, sometimes confined to the neighbourhood of the fetlocks, at other times spreading considerably further up the legs, and secreting an oily matter, to which the disease is probably indebted for its name. The discharge has a particular odour, owing, we imagine, to the secretion of the heels being of a nature peculiar to them, as in the instance of the axilla of the human subject. Horses of the heavy class, with round fleshy legs, are the most liable to grease, and the white legs more than the rest. The disease is almost exclusively found in the posterior extremities.

Grease is brought on by sudden changes from a cold to a hot temperature: such as removing horses from grass into hot stables; from hastily substituting a generous after an impoverishing diet; from the negligence of grooms, in leaving the heels wet and full of sand; and from constitutional debility. The reason which has been assigned for the hind-leg of the horse being particularly the seat of this complaint is, the distance being greatest between that and the heart, in consequence of which the blood's circulation is weakest in these parts, and the pressure of its column overcome with the greatest difficulty by the vessels.

On the approach of this disease, and for several days previously to any striking appearances of swelling and inflammation, considerable pain seems to be experienced by the animal in the affected heel, as he is continually raising it from the ground, and cannot rest upon it without much uneasiness. At this early period the complaint may in general be carried off by a poultice of boiled bran and linseed powder constantly applied to the part, and kept moist with warm water; giving every night, or every second night, a mild diuretic, with plentiful exercise on dry and clean ground.

Where, however, there already exists considerable inflammation, the poultice, as before directed, may be used, and a diuretic of a rather strong quality, or else a purgative, may be administered as often as the state of the case shall seem to require. When the urgent symptoms have abated, and the inflammation has apparently ceased, the heel may be washed,

four times a-day, with the following solution :

Take of Rain or distilled water, one quart ;

Alum, in powder, three ounces ;

Vitriolated zinc, half an ounce.

Mix.

Should there exist any ulceration, it will generally be found to heal by the astringent power of this application ; but, if it prove tedious, look foul, and have an offensive smell, pledgets of tow or lint, spread with the following ointment, may be retained on the surface of the sores until they assume a healthy aspect, and may then be discontinued :

Take of Ointment of yellow resin, two ounces ;

Verdigris, in fine powder, half an ounce. Mix.

In cases of grease, attended with debility and want of condition in the animal, medicines of a purgative or diuretic tendency may be thought improper, as contributing to the debility. Instead of these, something of an alterative quality should rather be preferred, as the following :

Take of Antimony, in fine powder ;

Flowers of sulphur, of each, six ounces ;

Linseed powder, two ounces ;

Honey, sufficient to form a mass for twelve balls.

One of these should be given once or twice a-day. The diet should be generous, and the clothing and exercise plentiful.

Obstinate cases of grease may very frequently be cured by withholding the horse's allowance of water for two days, or even a longer period ; let him then be ridden into the sea, and his extreme thirst will most probably induce him to drink pretty freely, notwithstanding the unpleasant flavour of that element. In this case, the salt-water will be found to act as an useful laxative and alterative. The process must be frequently repeated, wherever it may not appear injurious to the horse in any material respect.

We have introduced the latter simple method to the notice of the reader, having been assured of its efficacy from a respectable quarter, and that it afforded great benefit to a number of horses belonging to a regiment situated in a maritime quarter. Further trials certainly are required to establish it as a suitable remedy in these cases, and we have no doubt but many of our ingenious brethren will pay due attention to the hint. The greatest objection that can be entertained

against it seems to be the circumstance of depriving the horse of his usual supply of fresh water, which exclusion might, in some instances, be productive of injurious consequences. Would it not be a preferable plan to drench the horse very liberally with the sea-water, while fasting, in the morning ? And, as some advantage is supposed to be also acquired by immersing the heels in it, he might afterwards be taken into the sea for that purpose only. Somewhat analogous to this means of curing the grease, in its earlier stages, is the practice of turning the horse into a salt-marsh. A run of a few months, indeed, on a salt-marsh, will frequently eradicate very tedious cases of grease, and where other and more active remedies have been tried in vain. Another method of cure we can strongly recommend, namely, turning the horse to grass, his heels being previously blistered.

There are but few cases of grease, in fact, that will not yield to one or other of the above methods of cure. The strength of all applications to the heels must bear a proper proportion to the irritation and inflammation apparently existing : and it is necessary to remark, that different medicines, though of a similar tendency, are often required ; as any particular formula, when long made use of, is apt to lose its original power. We shall, of course, add a few other recipes, as substitutes, for each other, as their qualifications become diminished.

Take of Rain or distilled water, one quart ;

Sugar of lead, six drachms ;

Vitriolated zinc, half an ounce.

Mix.

Take of Rain or distilled water, one quart ;

Vitriolated copper one ounce.

Mix.

Take of Rain or distilled water, one quart ;

Vitriolated zinc, one ounce and a half. Mix.

Sometimes, indeed, applications in the form of lotions do not succeed so much to our wishes as the materials in a dry state ; at such times powders may have a superior effect. We recommend the following :

Take of Alum, in fine powder, four ounces ;

Vitriolated zinc, one ounce.

Mix.

Take of Alum, in fine powder, four ounces ;

Vitriolated zinc,

Vitriolated copper, of each six drachms. Mix.

Take of Alum, three ounces;

Vitriolated zinc,

Acetated ceruse, of each six drachms. Rub them together into a fine powder.

After the heels have been well washed with soft soap and warm water, any of these powders may be slightly rubbed on the diseased parts; but it must be recollected, that they are seldom or never admissible where the inflammation is great, and they are only to be considered as the means of invigorating and of bracing the skin, with the vessels by which it is supplied.

Cases of grease have occurred in which the swelling was excessive, the discharge offensive beyond description, and the surface of the heels has been covered with numberless enlargements resembling grapes. When reduced to this miserable situation, it will, in general, be observed that the horse is accounted of little or no value; and indeed, as the disease has acquired an habitual influence, we may mitigate, but we can seldom quite exterminate it.

The horny substance which is frequently formed on heels of horses, in consequence of grease, should be removed either by the knife or by the actual cautery, as being offensive to the sight, and giving strangers a disposition to suspect that the animal is more liable to the disease than he really may be.

As preventives for the above disease, proper exercise, with attention to cleanliness, and rubbing the heels perfectly dry when coming into the stable, are principally to be depended upon. The legs of some horses are apt to swell at particular periods, but generally at the approach of winter; to such, a few diuretics will be serviceable, and will probably prevent the intrusion of grease. Where any debility exists, the habit must be strengthened

with nourishing diet, and plenty of gentle exercise.

GREBE, THE. The grebe is about the size of a duck, and its plumage white and black; it has short legs, made for swimming, and not walking; in fact, they are from the knee upward hid in the belly of the bird, and have consequently very little motion. By this mark, and by the scolloped fringe of the toes, may this bird be easily distinguished from all others.

As they are thus, from the shortness of their wings, ill formed for flying, and from the uncommon shortness of their legs utterly unfitted for walking, they seldom leave the water, and chiefly frequent those broad shallow pools where their faculty of swimming can be turned to the greatest advantage, in fishing and seeking their prey.

They are chiefly, in this country, seen to frequent the meres of Shropshire and Cheshire, where they breed among reeds and flags, in a floating nest, kept steady by the weeds of the margin. The female is said to be a careful nurse of her young, being observed to feed them most assiduously with small eels; and when the little brood is tired, the mother will carry them either on her back or under her wings. This bird preys upon fish, and is almost perpetually diving. It does not shew much more than the head above water, and is very difficult to be shot, as it darts down on the appearance of the least danger. It is never seen on land; and though disturbed ever so often, will not leave that lake, where alone, by diving and swimming, it can find food and security. It is chiefly sought for the skin of its breast, the plumage of which is of a most beautiful silvery white, and as glossy as satin. This part is made into tippets; but the skins are out of season about February, losing their bright colour; and in breeding time their breasts are entirely bare.

GREEK FIRE. See **GUNPOWDER.**

GREYHOUND. If we are to regard external appearances only, the greyhound may be placed at the head of the dog tribe, as there is an elegance in his form which will be vainly sought in any other variety of the canine race. At what precise period the greyhound first made his appearance in Great Britain is not known; but it must have been many centuries ago—all trace, in fact, of the origin of this animal is completely buried in the oblivion of antiquity.

In ancient times, the greyhound was considered as a valuable present, especially by the ladies, with whom it appears to have been a particular favourite; as, for instance, the wife of Robert Bruce,

GREYHOUND

when a prisoner to Edward I. in the year 1304, had three men and three women servants, three *greyhounds*, plenty of game and fish, and the fairest house in the manor.

In a manuscript of Froissart, quoted by Montfaucon, there is an illuminated view of Isabella's splendid entrance into Paris in 1324; a *greyhound* attends her, with a flag powdered with *Fleur de lys* about his neck.

In a very old metrical Romance, called *Sir Eglamore*, a princess tells the knight, that if he was inclined to hunt, she would, as an especial mark of her favour, give him an excellent greyhound, so swift that no deer could escape from his pursuit—

Syr, if you be on huntynge founde,
I shall you gyve a good greyhounde
That is dunne as a doo:
For as I am trewe gentylwoman,
There was never deer that he at ran,
That might escape him fro.

In the 10th and 11th centuries, the price of a greyhound and also of a hawk appears to have been the same as that of a man. During the reign of King John, greyhounds were frequently received by him as payment in lieu of money, for the renewal of grants, fines, and forfeitures belonging to the crown. The following extracts shew this monarch's attachment to greyhounds. A fine paid in the year 1203 mentions five hundred marks, ten horses, and ten leashes of *greyhounds*; another in 1210, enumerates, one swift running horse, and six *greyhounds*.

We make the following interesting extract from Carr's "Stranger in Ireland:"—"In the morning (says the author, who was then on his journey to Ireland) I wandered to a little church, which owed its elevation to this interesting circumstance: Llewelyn, the Great, who resided near the base of Snowden, had a beautiful *greyhound*, named *Gelert*, which had been presented to him by king John. One day, in consequence of the faithful animal, who at night always sentinelled his master's bed, not making his appearance in the chase, Llewelyn returned home very angry, and met the dog, covered with blood, at the door of the chamber of his child: upon entering it, he found the bed overturned, and the coverlit stained with gore: he called to his boy, but receiving no answer, he too rashly concluded that he had been killed by *Gelert*, and in his anguish, instantly thrust his sword through the poor animal's body. The honourable Mr. Spencer has beautifully commemorated the above event:—

His suppliant looks, as prone he fell,
No pity could impart;
But still his *Gelert's* dying yell
Hung heavy at his heart.
Aroused by *Gelert's* dying yell,
Some slumberer waked nigh:
What words the parent's joy could tell,
To hear his infant cry.

GREYHOUND

Nor scathe had he, nor harm, nor dread;
 But the same couch beneath,
 Lay a gaunt wolf, all torn and dead,
 Tremendous still in death.
 Ah! what was then Llewelyn's pain,
 For now the truth was clear;
 His gallant hound the wolf had slain,
 To save Llewelyn's heir.

To mitigate his offence, Llewelyn built this chapel, and raised a tomb to poor Gelert; and the spot to this day is called *Beth Gelert*; or, the Grave of Gelert, "where never could the spearmen pass or forerster unmoved."

A further instance of the attachment of the greyhound is to be found among the specimens of early English Metrical Romance, by George Ellis, Esq. under the article *Sir Friamours*;

"The good greyhound, for weal ne wo.
 Would not fro the knight go;
 But lay and licked his wound:
 He weened to have heald him again,
 And thereto he did his pain;
 Lo! such love is in a hound!

"He even scraped a pit for the dead body, covered it with moss and leaves, and guarded it with constant attention, except during the times when he was employed in securing his own subsistence.

"As his prey diminished, the length of his chase gradually increased; and at the close of the seventh year, at the festival of Christmas, he suddenly appeared, gaunt with hunger, an unexpected visitor in the hall of king Arragon. Such an apparition excited general surprise, and particularly attracted the attention of Aradas; but the animal, with a gentleness of demeanour, which belied his savage appearance, made the round of the tables and disappeared. He returned on the second day, again surveyed the company, received his pittance, and retreated. The king now recollected the dog, and gave orders to his attendants, that, if he should return, they should follow without loss of time, in the confidence that he would lead them to the place where Sir Roger and the Queen were secreted. On the third day of the festival, the hall was filled at an early hour, and Sir Marrack for the first time took his seat amongst the guests. The greyhound did not fail to repeat his visits, and with the rapidity of lightning, instantly sprung upon the murderer of his master:—

"He took the steward by the throat,
 And asunder he it bote;
 But then he would not 'bide:
 For to his grave he ran.
 Then followed him many a man,
 Some on horse, and some beside,
 And when he came where his master was,
 He laid him down upon the grass,
 And barked at the man again.

GREYHOUND

“The crowd who had followed him, being unable to drive him from the spot, returned with the tidings to the king, who instantly comprehended the whole mystery. He directed them to dig for the body, which they readily found, and which had been miraculously preserved in such a state of preservation as to be easily recognised. It was then buried in holy ground with all due solemnity, and the faithful dog shortly after expired on the tomb which was raised in memory of his master.”

The greyhounds, however, of these early days, were, in all probability, something similar to the Irish wolf dog, or large rough greyhound, from which the modern greyhound was bred no doubt, but, in the progress of what was considered improvement, very much altered in appearance, and became less powerful and less courageous. The modern greyhound exhibits a striking instance of what may be accomplished by attention in the way of speed and beauty; but this has been obtained at the expense of strength, of courage, and of sagacity. We have many recorded instances of the striking sagacity of the greyhound of old; but it is an incontrovertible fact, that the modern high-bred greyhound, on the score of sagacity, is inferior to every other variety of the dog tribe.—But to proceed—

In former days, such was the esteem in which greyhounds were held, that even their collars were composed of the most valuable materials. In Hawes's *Pastime of Pleasure*, written in the time of Henry VII. Fame is attended with two greyhounds; in whose golden collars, *Grace* and *Governance* are inscribed in golden letters. These ornaments are often mentioned in the inventory of furniture, in the royal palaces of Henry VIII. In the Castle of Windsor, under the article *Collars*, may be found the following entries:—

“Two *grayhounds'* collars of crimson velvet and cloth of gold, lacking *torretes*.”

“Two other collars with the king's arms, and at the ende portculis and rose.”

“Item.—A collar, embrowdered with pomegranates and roses, with *torretes* of silver and gilte.”—“A collar garnished with stole work, with one shallop shelle of silver and gilte.”

In Henry the eighth's reign, the greyhound was distinguished as one of the king's beasts:—we read that at the siege of Tournay in the year of 1513, instead of a tent, Henry had a timber house with an iron chimney, and several pavilions, on the top of which stood “the king's beastes, viz. the lion, the dragon, the antelope, the greyhound, and the dun cow.”

The old couplets that describe the greyhound are very exact in the points they recommend as necessary to form a complete greyhound.

“Head like a snake,
Neck'd like a drake,
Back'd like a beam,
Sided like a bream,
Tailed like a rat,
And footed like a cat.”

GREYHOUND

In choosing a whelp, the choice was formerly governed by the weight, and that which was the lightest, it was supposed, would prove the nimblest and best. The raw-boned, lean, loose-made, and unseemly whelps, grew up well-shaped dogs; whereas, those that after three or four months appeared round, close trussed, and well built in every part, were not worth the rearing, seldom proving swift or comely. It was also an observation formerly, that *bitches* were commonly more *speedy* than the dogs.

The *time* to first try and train them to their game was at twelve months old, and there is little variation in this respect at the present day.

At two years old, the greyhound is full-grown, and the choice of one at that age was to be directed by his having a fine skin, with soft thin hair, a long lean head, with a nose sharp from the eye downwards; a full clear eye, with large eye-lids, little ears, a long neck bending like a drake, with a loose hanging weasand, broad breast, his body neither too long, nor too great, a back straight and square having a rising in the middle, a small belly, broad shoulders, round ribs, with a long space between his hips, a strong stern, a round foot with large clefts, and his fore-legs straighter than his hinder.

The breeding of the greyhound was recommended to be from the well-tried and best bitches, as an indifferent dog was supposed from such a cross to get better whelps than if the excellence was inverted, and the bitch but tolerable; the surest way to have the whelps excellent was to have both sire and dam good, and not to exceed four years old; if any inequality in their age, it was deemed better to be on the bitch's side, so that the dog was young.

The art of keeping a greyhound formerly, as well as entering him properly at his game, is thus described:—The keeping of a greyhound properly did not consist solely in the meat given him, but also in *kennelling*, *airing*, and *exercise*. When he was full in flesh, he was to have the chippings of bread in fresh broth. Milk and bread, butter-milk and soft bones, morning and evening, which was understood to keep him healthy. When he was low in condition or unwell, sheep's heads or feet with *the wool on*, chopped into small pieces and made into broth, with oatmeal and sweet herbs, was to be his daily food until he recovered his flesh and health.

The kennel was to be commodious, airy, the door towards the south, and the sleeping benches two feet and a half high, perforated with holes for the purpose of carrying off the urine: (A dog of any kind, will rarely eject either his urine or excrements on his bed; on the contrary, if closely confined, he will frequently howl for hours and even days, sooner than be guilty of what appears repugnant to his nature:) the straw on the benches was to be frequently changed, and the kennel kept extremely clean.

For greyhounds that were going to run, the following diet was recommended:—a peck of wheat, half a peck of oatmeal, ground and forced through a sieve; aniseeds bruised and liquorice were to be



THE DOGS

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scattered amongst it; and it was then to be kneaded up with the whites of eggs and new ale, into small loaves, which were to be well baked. This was to be soaked in beef or other broth, and given to them immediately after their airings, morning and evening.

Previously to airing, the dog was to be brushed or rubbed with a hair cloth; he was then to be led out in a leash half an hour after sun-rising, to some plain where there were neither cattle nor sheep, there to be suffered to frisk about and empty himself, when he was to be led back. In the evening, all this was to be repeated; and in winter, he was allowed once a day the indulgence of the fire. It was recommended to keep him always in kennel, as it was thought his spirit and activity were thereby increased.

The exercise recommended for the greyhound was coursing; if the courses were long, twice a week was deemed sufficient; otherwise, every other day, and they were to be rewarded and encouraged with the *blood* of the hare. When they were first entered, it was allowable to give them every advantage—such as finding a young hare and giving her no law; but this was not allowable after he had once got blood.

A toast and butter, upon coursing days, was given early in the morning; if the dog killed the hare, he was not allowed to break her; the hare was taken from him, his mouth cleared of the fur; and he had afterwards the heart, liver, and lights given him.

After a very hard run, his feet were to be washed with salt and water; and after remaining in the kennel for half an hour, he was to be fed.

In regard to the modern feeding and training of the greyhound, opinions are by no means unanimous. Some insist that they should go through a regular course in these respects, something like the race horse. It is asserted, that a dog which has long courses to run should never be over-burthened with flesh, and that a greyhound too fat should have two doses of physic, allowing an interval of six days, and to be moderately blooded between the doses; his food afterwards to be dry boiled meat, occasionally changed to fine oatmeal, reduced to a proper consistency with boiled milk.—If with this preparative food, he be allowed to run two or three courses a week, and be regularly rubbed with a hair cloth all over until the flesh upon his loins becomes elastic and hard, so far as preparation goes, he is complete. Yet it is admitted that all this nicety, all this systematic training and preparation, have frequently been thrown away, and the same dog that has failed in running, when thus artificially prepared, has shewed itself far superior in its performances, when no course of training has been previously adopted.

One thing, however, the writer will venture to state, that the greyhound should, if possible, always be suffered to go at large. Nothing so much promotes health and activity as a state of perfect freedom.

As the greyhound has always been a great favourite amongst the sportsmen of these islands, all possible pains have been bestowed

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upon its improvement ; and its present superiority is to be principally attributed to the unwearied perseverance of the late Lord Orford. It was a predominant trait in the character of this eccentric nobleman never to do any thing by halves, and coursing (and consequently the greyhound) was his most prevalent passion. There were times when he was known to have fifty couple of greyhounds ; and he made it a fixed rule never to part with a single whelp till he had had a fair and satisfactory trial of his speed. In breeding, his Lordship introduced every possible experimental cross. He had strongly indulged an idea of a cross with the bull-dog, from which he could never be diverted ; and it is said that after patiently persevering for seven removes, he found himself in possession of the best greyhounds ever yet known ; giving the small ear, the rat tail, and the skin almost without hair, together with that innate courage which the high bred greyhound should possess, retaining which instinctively, he would rather die than give up the chase.

No man, it is said, ever devoted so much time, or sacrificed so much property, to practical and speculative sporting as Lord Orford. His invincible zeal for coursing, and his undiminished rage for its improvement, remained with him to the last. No day was too long, or any weather too severe, for him ; the singularity of his appearance was laughable. Mounted on a stump of a pie-bald pony, in a full suit of black, without either great-coat or gloves, his hands and face crimsoned with cold, and in a fierce cocked hat which faced every wind that blew ; and while his gamekeepers were shrinking from the sand-gathering blasts of Norfolk, on he rode, regardless of the elements.

At a particular period of life, " when the springs of nature rose above their level," there was a necessity for some degree of medical coercion to bring him again within the bounds of prudent regulation. During this period of unavoidable suspension from his favourite pursuits, the extreme attention shewn to him by a person who regulated his domestic concerns, so much influenced his nicer sensations, that he dedicated to her the most tender and grateful affection during her life. The circumstance of her death (though by no means young or handsome) so much affected his Lordship, that the nerves, unstrung, again gave way, and the former malady returned with increasing violence. He was at this time confined to his chamber, with an attendant necessary to the disordered state of his mind ; but, by some plausible pretext, he contrived to get his keeper out of the room, when he jumped out of the window, ran to the stables, and saddled his pie-bald pony, at the time the grooms and stable attendants were all engaged.

On that day, his favourite bitch, Old Czarina, was to run a match of some magnitude ; the gamekeeper had already taken her to the field, where a large party were assembled, equally lamenting the absence of his Lordship, and the cause by which his presence was prevented : when at the very moment of mutual regret, who should appear at full speed on the pie-bald pony but Lord Orford himself.

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All attempts and entreaties were in vain ; none had power to restrain him ; the match he was determined to see, and no persuasions could influence him to the contrary, The greyhounds were slipped, and Czarina won ; but, during the course, it was found impossible to prevent him riding after the dogs, more particularly as his favourite displayed her superiority in every stroke : when in the moment of his highest exultation and the eagerness of his triumph, he unfortunately fell from his pony ; and, pitching upon his head, he almost instantly expired.

Shortly after his Lordship's decease, his greyhounds were brought under the hammer of the auctioneer. The late Colonel Thornton was the purchaser of Jupiter, Czarina, and most of his best dogs, giving from thirty to fifty guineas each ;—for the purpose of improving the breed in Yorkshire ; and by the union of the Norfolk and Yorkshire blood, the best greyhounds in the world were produced.—Snowball and his brother Major were superior to all other greyhounds either before or since—they were the very perfection of the animal ; and perfection, at least in greyhounds, appears not to be stationary ; as, notwithstanding every possible exertion, the breed has deteriorated a few shades, though there are at present great numbers of very capital greyhounds.

There was something remarkable in Lord Orford's favourite bitch Czarina : she won forty-seven matches, without ever having been beat ; and shewed not the genial desire till she had completed her thirteenth year, when she brought forth eight whelps by Jupiter, all of which lived, and were excellent runners. She was the dam of Claret and Young Czarina, both of which challenged all Yorkshire and won their matches. Snowball and Major, the two celebrated dogs above-mentioned, who united the very best of the Norfolk and the Yorkshire blood, were got by Claret out of a favourite bitch belonging to Major Topham ; and a couple of the whelps, of which Major was one, were sent to Colonel Thornton ; as, in fact, a sportsman's privilege for the use of his dog. Major, from several private trials, was concluded to be a shade swifter than Snowball ; though the latter was considered as a more complete greyhound ; all countries were alike to him : and, taken " for all in all," he was regarded as the most perfect greyhound ever produced. He won four cups, couples, and upwards of thirty matches at Malton, and upon the Wolds in Yorkshire. Snowball ultimately challenged the world, and met with no competitor.

The following epitaph for the tomb of Snowball was written by his master, Major Topham :—

He who outbounded time and space,
The fleetest of the greyhound race,
Lies here !—At length, subdued by death,
His speed now stopped, and out of breath.
Ah ! gallant Snowball ! what remains
Up Fordon's banks, o'er Flixton's plains,
Of all thy strength—thy sinewy force,
Which rather flew, than ran, the course ?

Ah! what remains? save that thy breed
 May to their father's fame succeed;
 And when the prize appears in view,
 May prove that they are Snowballs too.

Snowball was a jet black; while his brother Major, who perhaps won as many matches as Snowball, was brindled. These two dogs won every match for which they contended; and the same remark will apply to their sister Sylvia. Sylvia in colour was similar to Major; and these were certainly the three best greyhounds ever produced at one litter.

In the year 1792, Schoolboy, the property of T. Clark, Esq. was a greyhound of much sporting celebrity at Newmarket and its vicinity. He ran a great number of matches over Newmarket, upon which very large sums were frequently depending, and never was beat.

Miller, the property of the Rev. H. B. Dudley, though he had little to boast on the score of pedigree, ran himself into much fame.

Mr. Mundy of Derbyshire possessed an excellent breed of greyhounds, and there are few coursers who have not heard of his celebrated *Wonder*. Excellent greyhounds are now to be found in all parts of the kingdom.

GREY PLOVER. See PLOVER.

GRICE. A small wild boar.

GRIPES. See COLIC.

GROGGY implies a tenderness and defect in action, either from a chest, or foot, founder, or an injury sustained in the back sinews. Horses of this description, although they come crippled out of the stable, yet when the circulation is increased by action, and the stiffness gone off, their exertion is incredible, and their endurance of fatigue beyond conception.

GROOM. A man who looks after horses. The duties of a groom consist in dressing, dieting, exercising, and administering physic to them. He should demean himself after so gentle and so kind a manner towards his horses as to cause them to love him; for a horse is much attached to man. Hence, if dealt with mildly and gently, kindness will be reciprocal; but, if the groom or keeper be harsh and choleric, he will put the horse out of patience, make him rebellious, and occasion his biting and striking. So attentive should a person who has the care of horses be to this circumstance, that he should frequently talk to them, giving them good words, &c.

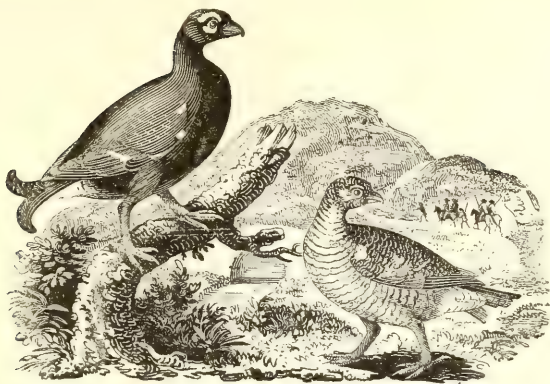
The qualifications necessary in a groom are obedience, fidelity, cleanliness, patience, diligence, and good temper. He ought to love his horse in the next degree to his master; and endeavour to obtain,

by fair usage alone, his implicit obedience. If he knows, indeed, how to act in this manner towards his master, he will the better be able to teach it his horse; and both the one and the other are to be obtained by fair means, rather than by passion and outrage. For those who are so irrational themselves as not to be able to command their own passions, are not fit to undertake the reclaiming of a horse, which is by nature an irrational creature. He must, then, put in practice the patience which he ought at all times to be master of; and by that, and fair means, he may attain his ends.

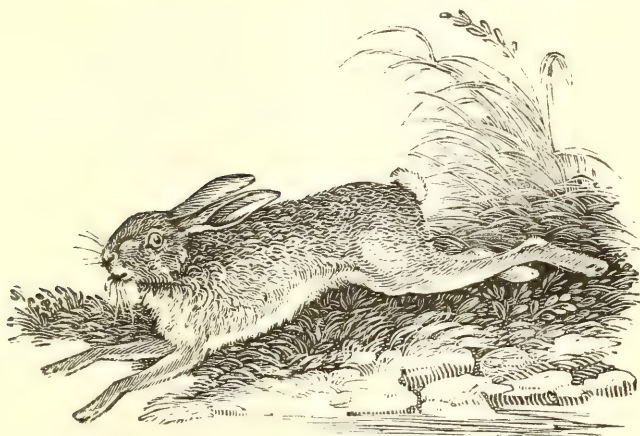
The next thing requisite to a groom is neatness, as to keeping his stable clean swept and in order. The saddles, housing-cloths, stirrups, leathers, and girths, should be kept perfectly clean. Great diligence is requisite in the daily discharge of this and the foregoing duties. But, above all, his vigilance is required to make the earliest discovery of any the smallest change, whether casual or accidental, either in his countenance, as symptoms of sickness; or in his limbs and gait, as lameness; or in his appetite, as forsaking his meat; and immediately upon any such discovery in the horse, to seek out a suitable remedy.

GROVELLING. A deer is said to *feed grovelling*, when he eats as he lies on his belly.

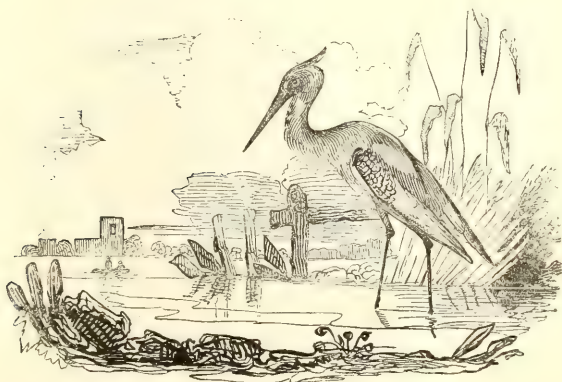
BIRDS, ETC. *Plate IV.*



GROUSE, or BLACK COCK, *p.* 319.



HARE, *p.* 415.



HERON, *p.* 444.





WILD GEESSE

GROUSE

GROUSE. The red grouse, or moor game, is the most common of the grouse tribe in England ; but the cock of the wood, the heath cock, or black game, and the ptarmigan, or white grouse ; are all birds of a somewhat similar nature ; and are found in heathy mountains and piny forests, at a distance from mankind. They might once indeed have been common enough all over England, when a great part of the country was covered with heath ; but at present their numbers are thinned.

The cock of the wood, or wood grouse, will sometimes weigh fourteen or fifteen pounds ; the black cock, of which the male is nearly all black, though the female is of the colour of the partridge, generally weighs three or four pounds, the female is one third less ; the red or common grouse is about half as large again as the partridge, and its colour much like that of a woodcock, but redder ; the ptarmigan is somewhat less, is of a grey-ash colour, except in winter, when it assumes the colour of the snow amongst which it resides.

The cock of the wood is chiefly fond of a mountainous and woody situation. In winter he resides in the darkest and inmost parts of the woods ; in summer he ventures down from his retreats to commit depredations on the farmer's corn.

This bird, when in the forest, we are told, attaches himself principally to the oak and pine tree ; the cones of the latter serving for food, and the thick boughs for a habitation. He even makes a choice of what cones he shall feed upon ; for he sometimes will strip one tree bare before he will deign to touch the cones of another. He feeds also upon ants' eggs, which seem a high delicacy to all birds of the poultry kind, as well as upon insects in general ; cranberries are likewise often found in his crop ; and his gizzard, like that of domestic fowls, contains a quantity of gravel, for the purpose of assisting his powers of digestion.

At the earliest return of spring, the cock of the wood begins to feel the influence of the season. During the month of March, courtship is continued, and is not relinquished till the trees have all their leaves, and the forest is in full bloom. During this season, the cock of the wood, we are told, is seen at sun-rise and sun-setting extremely active, upon one of the largest branches of the pine tree. With his tail raised and expanded, like a fan, and his wings drooping, he is seen walking backward and forward, his neck stretched out, his head swollen and red, and exhibiting a thousand ridiculous postures : his cry, on these occasions, is a kind of loud explosion, which is instantly followed by a noise like the whetting of a scythe, which ceases and commences alternately for about an hour, and is then terminated by the same explosion.

During the time this singular cry continues, the bird seems entirely deaf, and insensible to every danger ; whatever noise may be made near him, or even though fired at, he still continues his call. Upon all other occasions, he is one of the most watchful birds in nature ; but now he appears entirely absorbed in his instincts ; and seldom leaves the place where he first begins to feel the accessions of desire.

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This extraordinary cry, which is accompanied by a clapping of the wings, is no sooner finished, than the female hearing it, replies, approaches, and places herself under the tree, whence the cock descends to impregnate her.

The female is much less than the male, and entirely unlike him in plumage, so that she might be mistaken for a bird of another species: she seldom lays more than six or seven eggs, which are white and marked with yellow, of the size of a hen's egg: she generally lays them in a dry place and a mossy ground, and hatches them without the company of the cock. When she is obliged, during the time of incubation, to leave her eggs in quest of food, she covers them up so artfully, that it is extremely difficult to discover them. On this occasion she is very tame, however wild and timid in ordinary; and it is said, will suffer herself to be lifted off the nest rather than move.

As soon as the young are hatched, they are seen running after the mother with great agility, though not entirely disengaged from the shell. The hen leads them forward into the woods, and shews them ants' eggs, insects, and the wild mountain berries, which, while young, constitute their only food. As they grow older their appetites grow stronger, and they then feed upon the tops of the heath, and the cones of the pine tree. In this manner they soon come to perfection: they are a hardy bird; and as their food lies every where before them, they would increase very fast, were it not for their enemies, not only human, but the eagle and other rapacious birds.

The cock of the wood is unknown in England, Wales, and Ireland; but he has, if we are to believe the account, lately been re-introduced into the Highlands of Scotland, in the neighbourhood of Inverness. They are met with in Denmark, Sweden, and indeed in most of the dark forests of the north; and were once tolerably numerous in the northern parts of Scotland.

The black cock (black grouse) is one of the finest birds offered to the attention of the sportsman: he is the first of the game species known in this kingdom, and is to be met with only in a few places in England, and not in great abundance. These birds are found in great abundance in some parts of the Highlands of Scotland, particularly from the bottom of Loch Lomond up as far as the Firth of Dornach. There are some beyond the Muckle Ferry, and they are to be met with even beyond the Marquis of Stafford's Mound, where the Little Ferry was seen a few years since; further, they are seen in the neighbourhood of Barrow Dale; but they will be vainly sought in the remoter parts of Sutherlandshire or in Caithness. There are also black cocks in some parts of the mountains of Cumberland; as well as on the hilly parts of Derbyshire and Staffordshire, in Devonshire, and also in the New Forest in Hampshire; some have lately been introduced on Delamere Forest in Cheshire, where they are rapidly increasing.

Black game breed on heathy moors, but are generally found in the vicinity of woods, and sometimes, though not often, in corn fields. They lie remarkably well at the commencement of the season (Au-

GROUSE

gust 20,) but soon become very wild, and will often fly to a great height.

The food is various, but consists principally of insects and mountain berries; and in winter the tops of the heath, as well as the cones of the pine tree, the seed of the alder, and corn when they can conveniently obtain it. It is said, but with what degree of truth we will not pretend to vouch, that cherries and pease are fatal to these birds. They perch or roost much in the same manner as the pheasant.

The *red grouse*, or *moor game*, is found upon most of the mountainous districts in the united kingdom.

This bird, as we have already observed, is larger than the partridge; the male weighing from nineteen to twenty-four ounces. The female is considerably less than the male; her colours are less vivid, and she has more of the white and less of the red feathers than the male.

The heathy and mountainous parts of the northern counties of England are in general stocked with these birds; but they abound in the Highlands of Scotland, and are very common in Wales and Ireland. They feed on insects, mountain berries, seeds, and the tender tops of the heath.

Red grouse pair very early in the spring, and the female lays from twelve to thirteen eggs, in a very simple nest, formed amongst the heath. The young leave the nest almost as soon as hatched, and continue to follow the hen till the severity of the winter sets in, when they unite in packs of twenty or thirty brace. They continue together in the greatest harmony till the approach of spring, when they feel the access of genial desire; the old females then, contrary to what is generally supposed, drive off the young cocks, and a general dispersion takes place: the males view each other with a jealous eye, and furious battles are the consequence.

Grouse are very difficult to be netted, owing to the straggling manner in which they lie, and their scattering on the approach of the sportsman, or on the least noise.

The care and stratagem of the female for the security of the young are wonderful, and similar to those of the partridge, to which article we refer the reader.

The *white grouse* or *ptarmigan*. This bird is something less than the red grouse. They moult on the approach of winter, and change their summer dress for one more calculated for the rigours of the climate in which they are destined to pass the winter; and, instead of having their feathers of many colours, they then become nearly white. By a wonderful provision, every feather also, except those of the wings and tail, becomes double, a downy one shooting out of the base of each; which, of course, gives an additional protection against the cold.—In the latter end of February, a new plumage begins to appear, first about the rump in brown stumps: the first rudiments of the coat they assume in the warm season, when each feather is single. In answer to inquiries made by Sir Joseph Banks, Dr. Solander, and some other naturalists, from

G R O U S E

Capt. George Cartwright, who resided many years on the coast of Labrador, on the subject of the grouse changing their colour, he says, "I took particular notice of those I killed, and can aver, for a fact, that they get at this time of the year (September) a very large addition of feathers, all of which are white. In the spring most of the white feathers drop off, and are succeeded by coloured ones; or, I rather believe, all the white ones drop off, and they get an entire new set. At the two seasons they change very differently: in the spring beginning by the neck and spreading from thence; now they begin on the belly, and end on the neck."

Their feet, by being feathered entirely to the toes, are protected from the cold of the northern regions. Every morning they take a flight directly upwards into the air, apparently to shake the snow from their wings and bodies. They feed in the mornings and evenings, and in the middle of the day they bask in the sun.

About the beginning of October they assemble in flocks of one hundred and fifty or two hundred, and live much among the willows, the tops of which they eat. In December they retire from the flats about Hudson's Bay to the mountains, where, in that month, the snow is less deep than in the low lands, to feed on the mountain berries.

Some of the Greenlanders believe that the ptarmigans, to provide a subsistence through the winter, collect a store of mountain berries into some cranny of a rock near their retreat. It is, however, generally supposed, that by means of their long, broad, and hollow nails, they form lodges under the snow, where they lie in heaps to protect themselves from the cold. During winter they are often seen flying in great numbers among the rocks.

Though found in many of the mountains of the Highlands of Scotland, the ptarmigans are chiefly inhabitants of that part of the globe which lies about the arctic circle. Their food consists of the buds of trees (or rather perhaps the seed, as the writer is inclined to think, that neither the ptarmigan, nor any of the grouse tribe, devour the buds) mountain berries, and no doubt insects, of which all the ramifications of the grouse are remarkably fond. They are so stupid and silly, as often to suffer themselves without any difficulty to be knocked on the head, or to be driven into any snare that is set for them. When frightened, they fly off; but immediately alight, and stand staring at their foe. When the hen bird is killed, it is said, that the male will not forsake her, but may then also be killed with great ease. So little alarmed are they at the presence of mankind, as even to bear driving like poultry; yet notwithstanding this apparent gentleness of disposition, it is impossible to domesticate them; for, when caught, they refuse to eat, and always die soon afterwards.

Their voice is very extraordinary; and they do not often exert it but in the night. It is very rarely that they are found in Denmark; but by some accident one of these birds, some years ago, happened to stray within one hundred miles of Stockholm, which very much alarmed the common people of the neighbourhood; for, from its

THE PARTRIDGE
or White Game



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nightly noise, a report very soon arose, that the wood where it had taken up its residence was haunted by a ghost. So much were the people terrified, that nothing could tempt the postboys to pass the wood after dusk. The spirit was, however, at last happily removed, by some gentlemen sending their gamekeepers into the wood by moonlight, who soon discovered and killed the harmless ptarmigan.

Ptarmigans form their nest on the ground, in dry ridges ; and lay from six to ten dusky eggs with reddish brown spots.

The usual method of taking these birds is in nets made of twine, twenty feet square, connected to four poles, and propped with sticks in front. A long line is fastened to these, the end of which is held by a person who lies concealed at a distance.—Several people drive the birds within reach of the net ; which is then pulled down, and is sometimes found to cover fifty or sixty of them. They are found in such plenty in the northern parts of America, that upwards of ten thousand are frequently caught for the use of the Hudson's Bay settlement, between November and May.

They are taken by the Laplanders by means of a hedge formed with the branches of birch trees, and having small openings at certain intervals with a snare in each.—The birds are tempted to feed on the buds and catkins of the birch ; and, whenever they endeavour to pass through the openings, they are caught.

Such is the account collected from natural historians, of the ptarmigan or white grouse ; and as natural histories are very frequently put together by closet writers ; or, in other words, by men of education, but with little practical knowledge on the subject, they are compelled to receive their accounts from others, and as many of the details are gathered from unlettered ignorance, so it is not to be wondered at that the delightful science of natural history is still so miserably defective.

The ptarmigan or white grouse is principally to be found in the most northern countries, amidst the snows of those inhospitable regions ; but its constitution and habits are admirably adapted to the climate where it resides. It does not make its appearance farther south than the Highlands of Scotland, where it is found in tolerable plenty on the grey tops of most of the higher mountains. It is a laborious task to climb or ascend to those elevated regions where this bird is only to be found, though it is not difficult to shoot ; yet as far as the writer has had an opportunity of observing (in the Highlands of Scotland), the ptarmigan will never “ bear driving like poultry ;” though it is not a bird by any means remarkably shy of human approach : but this, in all probability, arises from its so seldom coming in contact with man. It seems precisely of the same hue (at least in Scotland) as the grey rocks amongst which it is found ; so much so indeed, that if, after shooting one, it be laid down, the similarity will scarcely fail to astonish the sportsman.

It is never seen (in Scotland) but on the tops of the mountains ; and its colour so nearly resembling its abode, is beyond all question, its best security against rapacious birds, and the eagle in particular,

which seems for ever hovering over the heights where the ptarmigan is found. It is smaller than the red grouse, though its flesh presents a similar flavour; and from its never being observed in the valleys or lower grounds (in Scotland) it may be fairly presumed, that it can exist only in the colder regions, for which, nature, indeed, has admirably adapted it. In fact, from a due consideration of the ptarmigan, it would appear to be the grouse of the north, as the red grouse, or moor game, may be regarded as the grouse of the south; while its inferiority in size evidently arises from the frigid nature of its abode. It is said to be found not only on the mountains, but in the valleys also, in the colder regions near the pole; and hence we may justly conclude, that its never being seen in the lower grounds in the Highlands of Scotland, arises from the circumstance of the comparative mildness of the climate not suiting its hardy constitution.

GUDGEON, THE, is to be found in most of the English rivers: it delights most in gentle streams, with gravelly and sandy bottoms. Mr. Pennant records one caught near Uxbridge that weighed half a pound: though properly a river fish, they thrive amazingly in ponds which have gravelly scours, and are fed with brooks running through them. The compiler had gudgeons in a pond of this description, so large, that their average weight was five, and at most six to the pound: the shape of the body is thick and round; the irides tinged with red, the gill covers with green and silver: this fish is leather-mouthed; the lower jaw is shorter than the upper: at each corner of the mouth is a single beard; the back is dark olive, streaked with black; the lateral line straight; the sides beneath that, silvery, the belly white; the tail is forked, and, as well as the dorsal fin, is beautifully marked with black. The flesh of the gudgeon is so delicious, as to be called the fresh-water smelt, and is compared with the smelt in point of flavour.

Gudgeons spawn twice or thrice in a year; the chief time is the latter part of April, again during the summer, and in the beginning of autumn: about the end of spring they seek shallows, which they frequent all the hot months; but the rest of the year they are usually taken in deep water, upon a bottom sandy, with mud.

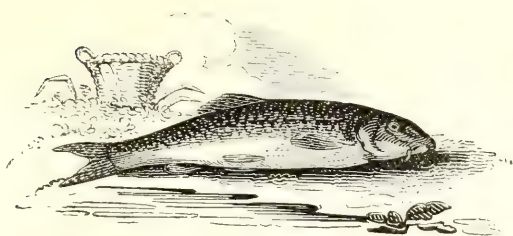
The gudgeon bites freely, and from the latter end of spring until autumn commences, in gloomy, warm days, from an hour after sun-rise to within the same space of its setting: during the rest of the year, the middle of the day, when it is warmest; for they do not take readily in cold weather, nor soon after spawning.

In angling for this fish in the shallows, the tackle must be very fine, a hook No. 7 or 8, a short rod and line, and a quill float; the bait should drag on the ground; they will take the small red-worm, gentles and blood-worms; the last is perhaps the best, and a rake (or the boat-hook, if fishing from a boat) should be kept frequently stirring the bottom. To this spot they assemble in shoals, expecting food from the discolouring of the water; and by row and then throwing in a few broken worms or gentles, they are also kept together, and sometimes great quantities are thus taken. They are apt to nibble at the bait; the angler ought not therefore to strike at the first biting: some use two or three hooks on the line. Such singular fascination had this fishing in one instance, that a clergyman, minister of Thames Ditton, who was engaged to be married to a daughter of the then bishop of London, overstaid the canonical hour, and the lady, justly offended at his neglect, withdrew her assent.

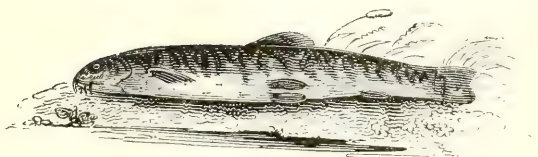
GUN. See the article FOWLING-PIECE.

GUNPOWDER. The first *fire* that was used in war occasioned as great (if not a more considerable,) alarm, as that caused by the explosion of gunpowder. It was called the *Greek fire*, and it is said to have been discovered in very ancient times. It was the invention of Calinicus, an architect of Heliopolis or Balbeck, who left the service of a Caliph, and brought the important arcanum to Constantinople in the reign of Constantine Pagonatus. That emperor forbade the art of making of it to be communicated to any except his own subjects, and the secret was long preserved: it was, however, at length known among the nations confederated

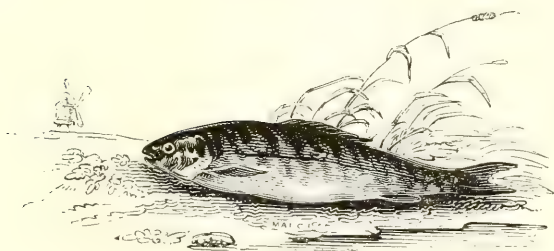
FISH. *Plate III.*



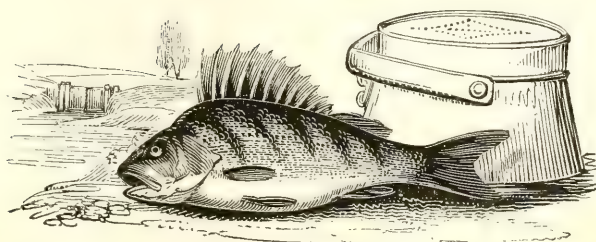
GUDGEON, *p.* 398.



LOACH, *p.* 523.



MINNOW, *p.* 549.



PERCH, *p.* 596.

with the Byzantines. It is supposed to have been compounded of the gum of the pine and other resinous trees, reduced to powder with brimstone, to which were added naptha and other bitumens, and, according to some, the water of a fountain in the east, which had the property to amalgamate with these combustibles, and to render them more inflammable; but this last article seems hardly possible to have been included, as in that case it could have been only made where that water was to be had, whereas it was in use both all over Asia and in Europe. Anna Comena says it was composed of bitumen, sulphur, and naptha.

The *Greek fire* was employed A. D. 883, by Nicetas, the high-admiral of the eastern empire, who was sent by the Saracens of Crete with a navy to assault Constantinople: he attacked and utterly defeated the enemy, burning twenty of their ships by "the *Greek fire*."

Procopius, in his History of the Goths, calls it "Medea's oil," considering it as an infernal composition prepared by that sorceress. It is said to have been known in China, A. D. 917, three hundred years after Constantine Pagonatus, under the name of the "oil of the cruel fire;" and was carried thither by the Kitan Tartars, who had it from the king of Ou. This wonderful and destructive mixture twice preserved the metropolis of the Eastern Romans from the infidel armaments. The *Greek fire* is much spoken of in all the histories of the holy wars, as being frequently employed with success by the Saracens against the Christians. During the Crusades, and in the reign of Richard *Cœur de Lion*, we shall find, that it struck with dismay the most intrepid Christian knights, until a method of extinguishing it was discovered by the French. By the following description of it, given by Joinville, who was an eye-witness, it had somewhat the appearance of the *iron rockets* still used in India: he says it was thrown from the bottom of a machine called a *petrary*, and that it came forward as large as a barrel of verjuice, with a tail of fire issuing from it as big as a great sword, making a noise in its passage like thunder, and seeming like a dragon flying through the air; and from the great quantity of fire it threw out, giving such a light, that one might see in the camp as if it had been day. Such was the terror it occasioned among the commanders of St Louis's army, that Gautier de Cariel, an experienced and valiant knight, gave

it as his advice, that so often as it was thrown, they should all prostrate themselves on their elbows and knees, and beseech the Lord to deliver them from that danger, against which he alone could protect them: this counsel was adopted and practised; besides which, the king being in bed in his tent, as often as he was informed that the *Greek fire* was thrown, raised himself in his bed, and with uplifted hands thus besought the Lord; "Good Lord God, preserve my people!" But the great terrors it occasioned, the effects of this fire do not seem to justify, as a mode had been found of quenching it. We are told, some of their castellated cats (a covered shed, occasionally fixed on wheels, and which had crenelles and chinks, from whence the archers could discharge their arrows; it was used for covering soldiers employed in filling up the ditch, preparing the way for the movable tower, or mining the wall; sometimes under the cover of this machine the besiegers worked a small kind of ram,) were set on fire, but the flames were extinguished. The *Greek fire* was thrown thrice in the night from the petrary, and four times from a large crossbow: the blaze lighted by this composition was inextinguishable by water. Geoffrey de Vinesauf, who accompanied Richard I. to the crusade, says of it, "with a pernicious stench, and livid flame, it consumes even flint and iron, nor could it be extinguished by water; but by sprinkling sand upon it the violence may be abated, and vinegar poured upon it will put it out. To these, some add urine, and even oil."

From other descriptions it appears, this composition was of an unctuous and viscid nature, sticking to the objects against which it was directed. In land engagements and sieges, it was projected by the machines of the times, and at sea by hand, enclosed in vessels or phials, in which it was also kept and transported; it was likewise sometimes fastened to the heads of arrows: sea water, instead of quenching, seemed to give it new violence and activity.

Both parties used the *Greek fire* at the siege of Acre, A. D. 1190, and Father Daniel says, "this wild fire was not only used in sieges, but even in battles, and that Philip Augustus, king of France, having found a quantity of it prepared in Acre, brought it with him to France, and employed it at the siege of Dieppe, for burning the English vessels in that harbour. At several other sieges in France,

it was also used; and an engineer, named Gaubert, a native of Mante, acquired the art of making it, which luckily for mankind, has been since lost." A composition something of the same nature was some years since invented by a chemist in this country, and who has an annual allowance so long as it shall remain a secret; our government being unwilling to increase the destruction and cruelty of war: a like discovery was made formerly in France or Holland, and for the like reason suppressed. It was supposed that this was what Earl Stanhope referred to, when he said in the House of Lords, "that the French were not only in possession of a secret respecting this unquenchable fire, but meant to practise it against our navy to its certain destruction." Notwithstanding, they do not appear to be fond of coming close enough to our fire of common gunpowder, to enable them to apply any of this supposed more destructive material.

Greek fire was used long after the introduction of fire arms, particularly in sieges. When the Bishop of Norwich besieged Ypres, A. D. 1383, the garrison is said, by Walsingham, to have defended themselves so well with stones, arrows, lances, *Greek fire*, and certain engines called *guns*, that they obliged the English, to raise the siege with such precipitation, that they left behind them their *great guns*, which were of inestimable value. A great part of that army was soon after besieged in the town of Burburgh, by the French, who threw such quantities of *Greek fire* into it, that they burned a third part of the town, and obliged the English to capitulate.

Although the invention of gunpowder, with its application to fire-arms, may be ranked among the most important discoveries, yet the date of that invention, with the name of the person to whom mankind are indebted for it, are both equally unknown. From the number slain in engagements previous to its introduction, what, at first view of its fatal effects, might be deemed an additional and severe scourge, has rather proved beneficial to the human race, by reducing the destruction of the species in battle within narrower limits. Formerly, when men engaged *hand to hand*, they were so intermingled, that the only criterion of victory was, the having no more of the enemy to kill: the duration of sieges has also been considerably shortened since the use of gunpowder and artillery, by which the lives of many

millions have been saved, who would otherwise have perished by hardships or disease, commonly in sieges more fatal than the sword, and in providing man with increased power over the animal world, and thus multiplying the catalogue of his food, the advantages derived from gunpowder are eminent.

The common story respecting the invention of gunpowder and artillery is thus related: about the year 1320, one Bartholdus Schwartz, a German monk, and student in alchymy, (a pursuit then much in fashion,) having, in the course of his experiments, mixed saltpetre, sulphur, and charcoal in a mortar, and partly covered it with a stone, it somehow took fire, and blew the stone to a considerable distance: thus, by one accident, furnishing the hints for making gunpowder, its force, and a piece of ordnance for using it: and it is worthy of observation, that *stones* are said to have been thrown from mortars long before *point blank* shooting was attempted: possibly this story may be true; but it does not at all follow from thence, that gunpowder was not *before known*, the same discovery having been frequently made by different persons engaged in the same study.

Many modern writers carry the invention of gunpowder, and even its application to artillery, back to very remote antiquity. The ingenious translator of the *Gentoo Laws*, finds *fire arms*, *gunpowder*, and *cannon*, mentioned in that code, supposed at least coeval with Moses.

Our countryman, Friar Bacon, whose works were written at Oxford about the year 1270, fifty years before the supposed invention by Schwartz, has expressly named the ingredients of gunpowder as a well-known composition used for recreation, and describes it as producing a noise like thunder, and flashes like lightning, but more terrible than those produced by nature, and adds, this might be applied to the destruction of an enemy by sea and land: Bacon acquired this composition from a treatise on artificial fire-works, written by one Marcus Græcus; the manuscript is still extant, and is quoted by the Rev. Mr. Dutens, in order to prove that gunpowder was known to the ancients; the composition therein prescribed is, two pounds of charcoal, one pound of sulphur, and six pounds of saltpetre, well pounded and mixed together in a stone mortar; this is a better mixture for powder than many late in use.

Bishop Watson, in his *Chemical Essays*,

remarks, that the history of the discovery of gunpowder is involved in much obscurity; the most ancient authors differing from each other in their accounts of this matter, and many of them confounding two distinct inquiries:—viz. the discovery of the composition of gunpowder; and the discovery of finding out the means of applying it to the purposes of war.

In 1378, is the first authentic mention of the lately invented instruments of death to be found; for then Richard II. sent to Brest great quantities of saltpetre, sulphur, and charcoal, together with two greater and two lesser engines called cannons, and 6,000 stone bullets.

In several accounts of military stores during the reign of Edward VI. and Elizabeth, there are large quantities of serpentine powder.

The making of gunpowder after the most ancient manner:—

Anno 1380, saltpetre, brimstone, charcoal, equal parts.

Anno 1410, saltpetre three parts, brimstone two parts, charcoal two parts.

Anno 1480, saltpetre eight parts, brimstone three parts, charcoal three parts.

Anno 1520. The making best powder, saltpetre four parts, charcoal one part, brimstone one part.

Anno 1647. The best sort now made, saltpetre six parts, brimstone one part, charcoal one part.

The musket powder is now commonly made of saltpetre five parts, brimstone one part, charcoal one part.

The cannon powder, saltpetre four parts, one part charcoal, one part brimstone.

The Bishop of Landaff, in his essay on the Composition and Analysis of Gunpowder, states, “that in the proportion in which they are combined, the manner of mixing, the goodness of the ingredients, and the drying of the powder after being made, its strength and excellency consist. Saltpetre, in its crude state, whether it be brought from the East Indies or made in Europe, is generally, if not universally, mixed with a greater or less proportion of common salt: now a small portion of common salt injures the goodness of a large quantity of gunpowder; hence the very finest saltpetre becomes necessary to be used in its formation. The purest sulphur is that sold under the name of flowers of sulphur; but the roll sulphur being much cheaper than the former, and being also of a great degree of purity, it is the only sort which is used in the manufac-

turing of gunpowder. With relation to the charcoal, it has been for the most part believed that the coal from soft and light woods was better adapted than the hard and heavy ones to the making of gunpowder; thus Evelyn says of the hazel, that ‘it made one of the best coals used for gunpowder, being very fine and light, till they found elder to be more fit.’ An eminent French chemist (M. Baume) has shewn from actual experiment, that this opinion in favour of coal from light wood is ill founded: he affirms, that powder made from lime tree coal, or even from the coal of the pith of the elder tree, is in no respect preferable to that made from coal of the hardest woods, such as guaiacum and oak. This remark, if confirmed by future experience, may be of service: as it is not always in the power of gunpowder makers to procure a sufficient quantity of the coal of soft wood.

“The mixture of the materials of which gunpowder is made should be as intimate and uniform as possible; for in whatever manner the explosion may be accounted for, it is certain that the three ingredients are necessary to produce it. In order to procure this accurate mixture, the ingredients are previously reduced into coarse powders, and afterwards ground and pounded together, till the powder becomes exceedingly fine; and when that is done the gunpowder is made. But, as gunpowder, in the state of an impalpable dust, would be inconvenient in its use, it has been customary to reduce it into grains, by forcing it, when moistened with water, through sieves of various sizes.

“The necessity of a complete mixture of the materials, in order to have good gunpowder, is sensibly felt, when such as has been dried, after being accidentally wetted, is used. There may be the same weight of the powder after drying that there was before it was wetted; but its strength is greatly diminished, on account of the mixture of the ingredients being less perfect. This diminution of strength proceeds from the water having dissolved a portion of the saltpetre (the other two ingredients not being soluble in water); for upon drying the powder, the dissolved saltpetre will be crystallized in particles much larger than those were which entered into the composition of the gunpowder, and thus the mixture will be less intimate and uniform than it was before the wetting. This wetting of gunpowder is often occasioned by the mere moisture of the atmosphere. Great complaints

were made concerning the badness of the gunpowder used by the English, in their engagement with the French fleet off Grenada, in July, 1779; the French having done much damage to the masts and rigging of the English, when the English shot would not reach them. When this matter was inquired into by the House of Commons, it appeared that the powder had been injured by the dampness of the atmosphere; it had concreted into large lumps, in the middle of which the saltpetre was visible to the naked eye. If the wetting of gunpowder has been considerable, it is rendered wholly unfit for use; but if no other foreign substance has been mixed with it, except fresh water, it may be made into good gunpowder again, by being properly pounded and granulated. If the wetting has been occasioned by salt-water, and that to any great degree, the sea salt, upon drying the powder, will remain mixed with it, and may so far vitiate its quality, that it can never be used again in the form of gunpowder. However, as by solution in water, and subsequent crystallization, the most valuable part of the gunpowder, namely, the saltpetre, may be extracted, and in its original purity, even from powder that has been wetted by sea water, or otherwise spoiled, the saving damaged powder is a matter of national economy, and deservedly attended to in the laboratory of Woolwich.

"The proportions," continues Dr. Watson, "in which the ingredients are combined together are not the same in different nations, nor in different works of the same nation, even for powder destined to the same use. It is difficult to obtain from the makers of gunpowder any information upon this subject: their backwardness arises not so much from any of them fancying themselves possessed of the best possible proportions, as from an affectation of mystery, common to most manufacturers, and an apprehension of discovering to the world that they *do not*

use so much saltpetre as they ought to do, or as their competitors in trade really do use. Saltpetre is not only a much dearer commodity than either sulphur or charcoal, but it enters also, in a much greater proportion, into the composition of gunpowder than both of those materials taken together; hence there is a great temptation to lessen the quantity of the saltpetre, and to augment that of the other ingredients; and the fraud is not easily detected, since gunpowder, which will explode readily and loudly, may be made with very different quantities of saltpetre.

"Baptista Porta died in the year 1515: he gives three different proportions for the making of gunpowder, according as it was required to be of different strength, the quantities of the several ingredients contained in one hundred pounds weight of each sort of powder.

	WEAK.	STRONG.	STRONGEST.
Saltpetre	66 $\frac{2}{3}$ lb.	...	75lb. ... 80lb.
Sulphur	16 $\frac{2}{3}$...	12 $\frac{1}{2}$... 10
Charcoal	16 $\frac{2}{3}$...	12 $\frac{1}{2}$... 10

100	100	100
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"It is somewhat remarkable, that in these three powders the sulphur and charcoal are used in equal quantities. Cardan died about sixty years after Baptista Porta, and during that interval the proportions of ingredients of gunpowder seem to have undergone a great change. Cardan's proportions are expressed as follows:

	GREAT GUNS.	MIDDLE SIZED.	SMALL.
Saltpetre	50lb. ...	66 $\frac{2}{3}$ lb. ...	83 $\frac{1}{3}$ lb.
Sulphur	16 $\frac{2}{3}$...	13 $\frac{1}{3}$...	8 $\frac{1}{3}$
Charcoal	33 $\frac{1}{3}$...	20 ...	8 $\frac{1}{3}$

100	100	100
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"For great and middle sized guns, we see a much greater proportion of charcoal than of sulphur was here used: at present it is in most places the reverse; or at least the charcoal no where exceeds the sulphur. The proportions are as under, for the best kind of gunpowder in England, France, Sweden, Poland, and Italy.

	ENGLAND.		FRANCE.		SWEDEN.		POLAND.		ITALY.
Saltpetre	75lb.	...	75lb.	...	75lb.	...	80lb.	...	76 $\frac{1}{2}$ lb.
Sulphur	15	...	9 $\frac{1}{2}$	..	16	...	12	...	12 $\frac{1}{2}$
Charcoal	10	...	15 $\frac{1}{2}$	...	9	...	8	...	12 $\frac{1}{2}$
	100		100		100		100		101 $\frac{1}{2}$

"Several experiments have been made in France to ascertain the exact proportions of the several ingredients which would produce the strongest possible powder, and the result has been in favour of

Saltpetre	...	...	80lb.
Charcoal	...	...	15
Sulphur	...	...	5

And from hence it appears that, in a certain weight of saltpetre, the powder

would produce the greatest effect when the weight of the charcoal was to that of the sulphur as three to one. On the other hand, experiments are produced from which it is to be concluded that in a certain weight of saltpetre the best powder is made when the sulphur is to the charcoal as two to one. From these different accounts it seems as if the problem of determining the very best possible proportions was not yet solved.

"In drying gunpowder, after it is reduced into grains, there are two things to be avoided, too much and too little heat. If the heat is too great, a part of the sulphur will be driven off, and thus the proportions of the ingredients being changed, the goodness of the powder, so far as it depends upon that proportion, will be injured. In order to see what quantity of sulphur might be separated by a degree of heat not sufficient to explode it, I took," says Dr. Watson, "twenty-four grains of the powder marked FF in the shops, and placing it on a piece of polished copper, I heated the copper over the flame of a candle; the gunpowder soon sent forth a strong sulphureous vapour, and when it had been dried so long that no more fume or smell could be distinguished, the residue weighed nineteen grains, the loss amounted to five grains. The remainder did not explode by a spark like gunpowder, but like a mixture of saltpetre and charcoal, and it really was nothing else, all the sulphur having been dissipated. Gunpowder was formerly dried by being exposed to the heat of the sun; and this method still obtains in France, and in some other countries: afterwards a way was invented of exposing it to a heat equal to that of boiling water; at present it is most generally in England dried in stoves, heated by great iron pots; with any tolerable degree of caution, no danger of explosion need be apprehended from this method. All the watery part of the gunpowder may be evaporated by a degree of heat greatly less than that in which gunpowder explodes, that degree of heat having been ascertained by some late experiments to be about the six hundredth degree on *Fahrenheit's* scale, in which the heat of boiling water is fixed at two hundred and twelve. There is more danger of evaporating a part of the sulphur in this mode of drying gunpowder than when it is dried by exposure to the sun.

"The necessity of freeing gunpowder from all its moisture is obvious from the

following experiment, which was made some years ago before the Royal Society. A quantity of gunpowder was taken out of a barrel and dried with a heat equal to that in which water boils, a piece of ordnance was charged with a certain weight of this dried powder, and the distance to which it threw a ball was marked. The same piece was charged with an equal weight of the same kind of powder, taken out of the same barrel, but not dried, and it threw an equal ball only to one half the distance. This effect of moisture is so sensible, that some officers have affirmed that they have seen barrels of gunpowder which were good in the morning, but which became (by attracting, probably, the humidity of the air) entirely spoiled in the evening. To keep the powder dry, by preventing the access of the air, it has been proposed to line the barrels with *tin foil*, or with thin sheets of *lead*, as tea boxes are lined. Would it not be possible," asks Dr. Watson, "to preserve powder free from moisture, and from the loss of a part of its sulphur in hot climates, by keeping it in glazed earthen bottles, or in bottles made of copper or tin, well corked? The disposition to attract the humidity of the air varies in different sorts of powder; it is the least in that which is made from the purest saltpetre. Pure saltpetre, which has been dried as gunpowder is dried, does not become heavier by exposure to the atmosphere; at least, so far as my experiments have informed me, not amounting to above one seventy-second part of its weight. I rather think," continues Dr. Watson, "that it does not acquire any increase of weight; however, in order to judge with more certainty concerning the effect of sea salt when mixed with saltpetre, in attracting the humidity of the air, I made the following experiment: five parts of pure saltpetre, in powder, were exposed for a month to a moist atmosphere, but I did not observe that the saltpetre had gained the least increase of weight; for the same length of time, and in the same place, I exposed four parts of saltpetre mixed with one of common salt, and this mixture had attracted so much moisture, that it was in a state of fluidity."

For ascertaining the strength of powder, gunsmiths generally make use of an instrument, which, I believe, is called a *trier*, and from which may be obtained tolerably accurate results: I prefer the fowling-piece for this purpose: by adjusting the charge very exactly, and firing at paper, many sheets in thickness, and at

given distances, much satisfaction may be obtained, not only as to the quality of the powder, but of the manner in which the gun throws the shot.

GWINIAD. It is found, according to Pennant, in one of the lakes of Ireland, Lough Neagh, where it is called the pol-len; in Loch Mabon, in Scotland, where it is termed the vangis; and the Scotch have a tradition that it was there first introduced by their beauteous Queen, the unhappy Mary Stuart; and as in her time the Scotch court was much Frenchified, it seems likely that the name was derived from the French *vendoise*, a dace, to which a slight observer might compare it from the whiteness of the scales: the British name, gwiniad, or whiting, was bestowed upon it for the same reason.

It is a native of the lakes in Cumberland; and in Wales in that of Pemble Meer, or Llynteged, near Bala, in Merionethshire. In the lakes of the Alpine parts of Europe, in those of Switzerland, (in that of Geneva it is named *ferra*;) Savoy, and Italy, of Norway, Sweden, and Lapland, (where Schæffer asserts they are caught of the weight of ten or twelve pounds,) this fish is an inhabitant. It is, continues Mr. Pennant, gregarious, and approaches the shores during spring and summer in such vast shoals as to prove, in many places, to the poor of inland counties, as great a relief as the return of the herring is to those who dwell upon the coasts; and he recites an instance of an Ulles-Water fisherman who took between seven and eight thousand at one draught: it is there called *schelly*, a name which the inhabitants of Cumberland give also to the chub, from its being a scaly fish.

It has long since been observed in Camden, that the gwiniad never wanders into the Dee, nor does the salmon ever venture into the Bala lake; and, generally speaking, this is the case; but, by accident, the first has been known to stray as far as Landrillo, six miles down the river, and a salmon has now and then been found trespassing in the lake.

The late Honourable Daines Barrington remarks upon this fish, that it is universally supposed (and even by Lhwyd, in his additions to Camden's *Britannia*) salmon are never caught in the lake of Bala, although they are frequently taken in the river Dee, just below where it issues from the lake, whilst the contrary is observed with regard to the gwiniad, which is conceived to be a fish peculiar to the lake; but, says Mr. B. I happened to see a salmon of

about fifteen pounds caught in the lake, at least two hundred yards above the bridge through which the Dee issues; and, although I never saw the gwiniad taken in that river, yet was I most authentically informed that several were caught, within three years, as low down as Landrillo, nearly six measured miles from the lake of Bala; and with respect to the gwiniads being only in this lake, I can myself flatly contradict this notion, as the first parcel of fish which I happened to see in the market of Penrith, in Cumberland, were of this sort, and were brought from Ulles-Water, about four or five miles from thence.

One very striking mark in this fish, which cannot but be attended to by those who are not naturalists, is, that they have the ventral fins of a very deep blue, and the belly at most seasons is marked with blue spots; which, concludes Mr. B. is what I do not recollect in any other fish of this island.

According to Mr. Pennant, the gwiniad is an insipid fish, and must be soon eaten, as it will not keep; and those that choose to preserve, salt them: (Schæffer represents them as being of an eminently fine luscious taste, and known in Lapland and Sweden by the name of *sijk*;) the largest Mr. P. ever heard of weighed between three and four pounds; that from which he took his description was eleven inches long, and its greatest depth three. The head is small, smooth, and of a dusky hue; the eyes very large, and the pupil of a deep blue; the nose blunt at the end; the jaws of equal length; the mouth small and toothless; the covers of the gills silvery, powdered with black; the back is rather arched, and, as far as the lateral line, glossed with a deep blue and purple colour, but towards the line assumes a silvery cast, tinged with gold, beneath which those colours entirely prevail; the belly is a little prominent, and quite flat on the bottom: the first dorsal fin is placed almost in the middle; the second is thin, transparent, and not distant from the tail; the ventral fins in some are of a very fine blue, in others as if powdered with blue specks; the ends of the other lower fins are tinged with the same colour; the tail is very much forked; the scales are large, and adhere close to the body. Their spawning season in Llynteged is in December. They are taken in nets, but never by any bait, keeping on the bottom of the lake, and feeding on small shells, and the leaves of water gladiol, a plant peculiar to these mountain lakes.



Engraved by J. V. Cook

THE JOCKEY'S JACK.

See page 100

H

HACK, THE. From a superficial glance at the subject, it might be hastily supposed, that hacks were every where to be met with; and such is the case : but, of all descriptions of the horse, I am of opinion that a thorough good hack is the most difficult to procure. A horse of this description should go well in all his paces, and be perfectly free from stumbling; and in this case, as in that of the hunter, a certain combination of figure and form are indispensably necessary for the satisfactory accomplishment of the object in view. Let it not, however, be hastily supposed, that the form and character of the hunter are precisely those which are requisite in the hack; the cases are very different; and it rarely happens that a hunter, however excellent his qualities in the field, becomes a good roadster. Further, a horse used to harness, a gig horse, for instance, how safe soever he may be in his going, is seldom, if ever, pleasant to ride. By leaning against the collar, he is induced to accommodate his paces accordingly; and thus, if used as a saddle horse, the rider will soon perceive, that he is any thing rather than a pleasant hack. A horse may be used (and sometimes is) for hunting, running in a gig, and as a hack; if he excels in *one* of these, it is as much as can be reasonably expected: he cannot be superior in all.

In a hack, I am an advocate for a large portion of blood; nor would I refuse a hack as highly bred as possible, supposing his form and mode of going were such as met my approbation. But I must candidly confess, that the best hacks which I have ever seen, have not been thorough-bred, though they have evidently manifested very considerable breeding. What indeed is understood by the term blood, is a quality of which, in my opinion, scarcely any horse should be destitute; since it gives the animal superior courage, strength, activity; and, even when *over-marked*, enables him to regain his wonted health and vigour in a short space of time. It is well known to persons conversant with the subject, that horses with plenty of breeding, when worked to a stand still, much sooner recruit, or come round again, than those of inferior blood.

From fourteen hands, three inches, to fifteen hands, two inches, may be considered as the hack standard. The hack should be a compact, rather than a *lengthy*, horse, free from vice of every description, and remarkably sure-footed: a stumbling hack places his rider's neck in continual danger. The first and most essential point in a hack is the form of the shoulders: if they are not placed in the true declining position—if they do not possess sufficient slope, the animal can never be safe. The reason is evident: an upright or straight shouldered horse carries the saddle too forward, and thus the weight of the rider, by being placed too near, or too much over, the fore legs, prevents, as it were, the free use of them; with his burden thus placed upon him, the horse is incapable of raising his fore feet sufficiently high; his toe is consequently liable to strike, or catch, the most trifling inequality of the road, he stumbles, is less able to recover himself from his load being placed too forward, and

is therefore very likely to come down or fall. Some horses are apt to *go too near*, as it is called, that is, not to lift their fore feet sufficiently high : these will frequently catch and stumble ; but, if the form of their shoulders be correct, they will seldom fall :—the reason is obvious—the weight is placed further back, they have thus the free use of their fore legs, and are enabled to recover themselves. Thorough-bred horses will often go very near ; and, for the purposes of the course, it is a great recommendation, as by it they acquire an acceleration of speed ; but in a hack it is an evident draw-back, however great his merits may be in every other respect. It is somewhat difficult to give a satisfactory reason why blood-horses almost uniformly manifest a disposition to go too near, since their shoulders are generally well placed. Originally they are descended from the Arabian steed, which is a *daisy cutter* by nature as well as habit :—the Arabian horse, in his native country, has to traverse sandy deserts—speed is the principal object of his master ; and as the surface of the ground over which he passes is the very opposite of that to which an English hack is accustomed, and offers little or no impediment to closeness of going, he is habituated to it accordingly, and the propensity is propagated from one generation to another.

A hack should be a compact well-formed animal, bony, with good legs and feet, thighs long, quarters wide and well set in, deep ribs, shoulders well thrown back, long muscular arm, short from the knee to the ground, legs straight, neck long rather than short, and a well formed head, dropping prettily at the end of it. Full clear eye, forehead broad, nostrils wide (See the article HUNTER). A ewe-neck presents an unsightly appearance : well-bred horses, however, are frequently seen inclining to the ewe-neck : Fleur de Lis, for instance, one of the finest mares in England, and unquestionably a very superior racer, is ewe-necked ; I have seen many excellent horses thus formed ; and therefore should not reject a hack, otherwise eligible, because he happened to be rather ewe-necked.

I have already observed that a hack should be good in all his paces, but as there are some persons who prefer the walk, others the trot, and others the canter—in procuring a hack, a person should endeavour to suit his own taste or inclination in this respect. Some elderly persons, and a few others, are satisfied with the walk, and these should consequently seek for an animal who excels in it : horses are to be found that will walk five or perhaps six miles an hour ; and good walkers I have often found safe goers. Those who prefer the trot, should seek for a horse whose form of trotting is safe, rather than fast ; one that lifts his feet up well, and trots out fairly : a horse of this description is very safe to ride, and will generally be found to be quite swift enough for all ordinary purposes. If the canter be preferred, a short compact horse should be chosen for the purpose.

It will be here necessary to remark, that some horses in their slow paces, and particularly in their walk, will loll upon the bridle, and become consequently very heavy in hand ; than which nothing can be more unpleasant ; and, what is worse, animals of this description are very liable to fall, and that too very suddenly. A horse

seldom falls when going fast. A hack (and indeed all descriptions of horses;) should be light in hand, in which case, he seldom fails to have what is called a good mouth.—Whoever purchases a horse with which he has not been previously well acquainted, ought to ride him a few miles, in order to ascertain whether he is a “*tumble down*,” restive, or has contracted any other vicious habits. By riding slowly, with a slack bridle, and in a careless manner, if the horse have a propensity to stumbling, it will soon be discovered. Many horses have a great aversion to meeting a stage coach, a large caravan, or any large vehicle, and such a circumstance cannot fail to be unpleasant and alarming to a timid or unskilful rider. Not that I should reject a horse merely on this account, as, unless the animal is old, and the habit absolutely and inveterately confirmed, it is a defect not very difficult to remedy.—Generally speaking, those persons whose business or avocation in life it is to attend horses, are seldom remarkable for education or intelligence; and if they possess the power or faculty of reflection, they seldom exercise it in a correct or philosophical manner. A young horse, before he is backed or ridden, is unaccustomed to a turnpike road, and consequently when first brought upon it, the vehicles which he there meets are new to him, and the manner in which they approach generally alarms him (he seldom testifies any symptoms of alarm when carriages are moving in the same direction as himself—not nearly so much even on passing them). When he comes to pass the object which had already excited his fears, he presses to the extreme side of the road, in order to place himself as far as possible from the object of his alarm, and rushes by or past it; or, instead of this, on approaching it turns about, and refuses to pass altogether. An ignorant groom or horse-breaker immediately applies the whip and spurs most unsparingly, which is making bad worse; if he succeed in forcing the horse in the wished-for direction, it is at the expense of his fears; and when a similar object presents itself, the animal is still more alarmed, from the excessive punishment which he received before, and the same scene is played over again, most likely with increased violence on both sides. Thus, on the approach of whatever has originally alarmed the horse, he immediately recollects the punishment he has endured, expects a repetition of it; his fears increase, rather than subside, and the habit, in a short time, may perhaps be difficult to remove, even when proper means are adopted for the purpose. Now, if instead of the whip and spur, soothing, friendly words, caresses and mildness had been substituted, though the animal might not have met the object of his alarm with indifference, his resistance would have been much less violent; and a few repetitions would have removed it entirely.

Whenever a horse manifests alarm at any object, whether stage coach, caravan, windmill, &c. he should never be violently pressed to face it: he should be coaxed, patted, and not forced too near the object which causes his terror, on the first occasion. He should be accustomed to the sight as much as possible, and by gentle, but firm, treatment (for he must not be suffered to avoid it altogether;) he will soon be brought to face it with indifference. I had a horse, some

few years ago, which, the first time I happened to be passing near a windmill, turned suddenly round, and galloped back with me for several hundred yards before I could pull him up. The horse was a good tempered creature, but high spirited, and it was not without great difficulty I could induce him to approach within about thirty yards of the mill. It was evident that severe punishment had been administered on some former occasion. However, the following morning I rode the same way; and being prepared for the business, I took care he did not turn and carry me back as before. By kind treatment, I induced him to approach much nearer, and to remain in that position for some minutes: after a few lessons of this sort, I was enabled to ride him as near the mill as the sails would allow, and for the three years following, while he remained in my possession, he uniformly passed a windmill with as much indifference as his rider.

I should never advise any person to purchase a restive horse; and this vicious propensity, which arises from a base, cowardly disposition, is easily discovered, when the animal is mounted by a stranger. Many restive horses will go quietly enough with those who are perfectly master of them; but the moment they are mounted by a stranger they prepare for battle. Some of these animals will go pleasantly enough, even with a stranger, provided they are ridden but a short distance from the stable; or, if in a town, the ride be confined to the town; but when the animal is taken farther than he wishes (suspecting a journey is the object, as restive horses have an inveterate antipathy to work;) he may be perceived to stare, place his ears in a forward direction, will breathe very hard or loud, and will appear to labour under some degree of alarm. He is looking out for his object; and will seldom fail to stop at the first stable, barn, house, or building, or any thing else which he approaches. He will turn suddenly round and go back, he will stand still, or perhaps attempt to run into the yard, if there be one; or into the stable, if the door be open; or force himself against the wall or gate post, and perhaps break the rider's leg. If you attempt to fight with him on these occasions (and gentle means are out of the question;) he will be found prepared for the contest.—With one fore foot placed in advance, on the side on which his mouth is the hardest (and all horses have one side harder than the other) he will be prepared to resist all attempts at pulling him round. The best method under such circumstances, is to pull the opposite rein suddenly, pull him quite round, and continue pulling him completely round three or four times as quickly as possible, which makes him giddy, throws him off his guard, and completely confuses him. As soon as three revolutions have been completed, his head should instantly be placed in the direction in which it is wished to proceed, and, at the same moment, the spurs and whip applied in the most liberal manner possible. He will, of course, gallop for some time; and, if the nature of the road will allow, he should be compelled to gallop considerably further than his own disposition would induce him to go. The greater part of restive horses may be compelled to abandon this highly dangerous propensity by the method just described, and in a much shorter time

than is generally supposed ; but they are never to be trusted, and seldom fail to try for mastery with every strange rider that may happen to mount them. Moreover, there are horses to be met with so inveterately restive, as to be incurable—they will rear most alarmingly, a vice dangerous in the highest degree ; which is seldom totally eradicated, but may be partially suppressed, by those who are masters of the science of equitation.

Yet, it is but fair to remark, that there are horses, which, from a little obstinacy of disposition, are apt to manifest a wish or will in opposition to that of their rider, which are, nevertheless, valuable animals. Ten years since, I purchased a little black Irish horse, which I rode very pleasantly for some weeks ; but happening to take a journey of some distance, when on my return, a few miles from home, I wished to call on a friend, and for that purpose attempted to turn the horse down a lane which led to the house, in a different direction from my house, and consequently from the horse's stable. He was perfectly conscious of this ; for he placed his off fore foot in advance, and immediately assumed a tone of disobedience. I instantly pulled the opposite rein of the bridle, twisted him round three or four times, placed his head in the direction I wished to proceed ; at the same time, I applied the steel and the lash most freely, and we thus went along as fast as the horse could gallop for about half a mile ; when he went forward as quietly as possible. This could scarcely be called vice : the horse was anxious to get to his own stable, and was aware the road I wished to take did not lead to it.—He never made but one more attempt of the same kind ; and was, on the whole, a very good horse.

Professed horse dealing is that kind of business in which neither candour nor honour is to be expected : deception is studied by horse dealers as a science ; and whatever act of dishonesty may be committed by one of this knowing fraternity, the transaction is regarded by the author of it as very clever ; he laughs in his sleeve, and takes much merit to himself for his own dexterity and cunning ; while the world view the matter as relating to the man's avocation, and, generally speaking, he is not regarded as dishonest on that account. Indeed, it may be further remarked, that most persons (not including dealers) who have horses to dispose of allow themselves a very wide latitude, or rather perhaps a very considerable stretch of conscience ; and, although in other matters they would shudder at the idea of being guilty of any thing like dishonesty, yet, in the sale of a horse, would not hesitate to resort to the most culpable equivocation, if not to positive and deliberate falsehood.

Under such circumstances, therefore, it behoves those who wish to purchase a horse, and are incapable of forming a good opinion for themselves, to be very circumspect in the business. A horse may be returned, it is true, if warranted sound ; dealers are also ready enough to give a warranty : yet if it becomes necessary to return the horse, as the seller had, in all probability, been guilty of studied falsehood in ridding himself of the animal, he resorts to the same means, and even to false swearing, for the purpose of retaining the

money which he has received for him. For my own part, in my horse dealing transactions, I neither require, nor give, a warranty. I never purchase a horse till I have ridden him sufficiently to satisfy myself that he will suit me. In the sale of a horse, I allow a similar latitude. By this method, I avoid every thing in the form of litigation: yet I by no means offer my system as an example for others, since a regular warranty must, after all, operate as a sort of protection for the unskilful in horse flesh.

But to return to the subject of vice in horses, and those tricks which are almost daily in practice by horse dealers. Having made all the requisite observations respecting unsafe goers, those which are said to *shy* on the road, and on restive horses, I have further to remark, that there are several other circumstances or cases incident to the business of purchasing a horse, which require consideration. A broken winded horse is very easily discovered, even by the most indifferent judge, when galloped a short distance, unless means are adopted to prevent it. The dealers in what are called *screws* for the purpose of hiding the defect of broken wind, give the animal bacon fat, (most likely any kind of fat or animal oil would answer the same purpose,) to which some of them add shot or lead, which, it seems, will enable the horse to breathe for twenty-four hours without exhibiting those very obvious and well-known symptoms which denote the disease. Again, if a horse is a kicker, or be otherwise vicious, when approached or handled, he is dosed with opium, the effect of which is too well known to need a description in this place.

Horses with very delicate mouths should be ridden in a plain snaffle, unless they are given to stumbling, in which case the curb is to be recommended—a powerful curb upon a hard mouthed horse.

Cobs and ponies may be appropriately enough placed under the present head, since they are very generally employed as hacks. Many of what are called cobs, are perhaps the most generally useful of any of the horse tribe. They may be regarded as “*large horses in a little compass*,” and, when they possess the gift of going well, make not only good hacks, but may be applied to almost any purpose.

Ponies are useful creatures, and occasionally create surprise by the long journies which they perform; but they cannot be so pleasant in their paces as horses with a proper large stride. They are best calculated for children.—Timid ladies are partial to riding on ponies; they would be more securely and pleasanter carried on good sized horses.

The *Lady's Pad* is seldom required to be a powerful animal; but, above all horses, should be safe and surefooted, with a mouth as delicate as possible: and, in order to accomplish these objects, the horse should have his mouth properly made, and he should then be ridden over the most uneven ground possible with the bridle lying loose upon his neck: he would most likely fall at first, but would soon learn to take care of himself, without trusting to the bridle: he should also be well reconciled to every noise, and all objects which are calculated to create alarm: another person mounted should gallop

by or past him, cracking a whip and making a great noise : he will thus become so perfectly steady that a lady may ride him with the utmost confidence and safety. The canter is the pace best calculated for a female.

Butchers' Hacks are remarkable equally for their mean appearance and the long journies which they perform. Butchers are hard riders, and they contrive to make their rough-looking nags go a great distance in a very short time. At first view this seems surprising, as their hacks seldom manifest any very high pretensions to breeding, and at the same time very often appear battered and blemished; their condition too, none of the best. I must confess I have scarcely ever been able to satisfy myself on this score.—However, it may be justly remarked, that butchers are seldom sparing of the spur (they seldom appear with more than one;) or the ash plant; and although they perform long journies in a short space of time, their hacks seldom fail to exhibit incontestible proofs of the violence which has been called into action for the purpose of forcing the animal to accomplish the object which the rider had in view. But it is not always that the unfortunate quadruped is able to perform the inhuman task imposed upon him:—nature sinks under it, and the creature expires.—A butcher, now living, while riding between Chester, and what is called the Rock Ferry, on the banks of the Mersey, perceived his horse lame, five or six miles before he reached the last mentioned place, and as he rode along, a rustic called to him, saying that his horse's near fore foot was covered with blood:—the blood was oozing out at the coronet, owing most likely to a wrench, from the foot catching between two stones. The fellow, nevertheless, forced the animal forward: he reached the Rock Ferry, where his horse walked, as it were, out of his hoof—*it came completely away!* The trot is the butcher's general pace; and, it may correctly be observed, that, if the horse has any trot in him, they will bring it out: little doubt can be entertained, that the trot is the least fatiguing to a horse of any of his quick paces, and that which will enable him to accomplish long journies in the shortest period of time. Butchers' hacks are seldom much better than screws, at least in appearance—they are almost every where to be met with: butchers indeed may be regarded as a sort of semi-horse-dealers; they are often changing their hacks.

It may be observed of butchers, that they slaughter their hacks as well as their cattle; or, in other words, by mere dint of punishment, they compel the horse to perform that of which he is generally supposed incapable.

Finally, it may be remarked, that a horse with thin shoulders, and a flat chest, whose fore feet stand boldly forward and even, his neck rising rather semicircularly from the points of those thin shoulders to his head, may justly be said to have a light forehand, and to be better calculated for the saddle than the collar. As most horses in the hands of farmers, while young, are drawn, which, notwithstanding their make, occasions them to move heavily, if you desire a nimble footed horse, choose one that has never drawn.

HACK, COVER. A horse used by sportsmen to ride to the

fixture, or place of the hounds' meeting, when the hunter is mounted, having been previously sent forward by a servant.

HAIR,—with which the frame of the horse is so completely covered, and more familiarly termed *coat*, is, in general, indicative of the good or ill state of the horse; not only in respect to health, but to his condition, for whatever work he may be designed. If the subject is sleek in his coat, with a glossy shining surface, soft and pliable in the skin; not tight upon the ribs, as if firmly adhering to the side; no enlargements upon the lower joints of the legs, nor any profuse and faint perspiration upon moderate work, the blood may be pronounced in a healthy state, and the horse in fair and good condition.

If, on the contrary, the coat is rough, hollow, staring different ways, of a variegated hue, with a tinge of dust or scaly scurf beneath the surface, the perspirative matter has been thrown upon the circulation by a collapasion of the porous system, the blood is become sily, and disposed to morbidity, in proportion to the preternatural weight by which it is overloaded, and the obstructions it has to encounter in its passage through the finer vessels, occasioned by the languor of the circulation.

Where a loss of hair has been sustained by some injury, as in broken knees, wounds after being healed, blistering or firing, the growth may be promoted (particularly in slight cases) by reducing three drachms of camphire to fine powder, then letting it be well incorporated with two ounces of spermaceti ointment, upon a marble slab, and a small portion of it well rubbed into the part affected at least once, but it will be better if persevered in twice, a day. Neats' foot oil, sheep's foot oil, or indeed any animal oil is still better, and more simple.

HALLOO.—A term or shout frequently used in the chase. In coursing, where a hare is started, the dogs are excited to pursue by the vociferation of *Halloo!* *Halloo!*—In hunting, its meaning will require a more verbose explanation; halloos may be called the language of the chase: they are used to encourage the hounds, as well as for the purpose of reprehension; there is also the view halloo: the meaning of which will be very intelligibly explained by a few words from Beckford.—“I have a friend (says he) who hunts his own hounds, who has the strangest voice, and the oddest halloo, I ever heard. He has, however, this advantage: no dog can possibly mistake his halloo for another. Singularity constitutes an essential part of a

huntsman's halloo:—it is for that reason alone, I prefer the horn, to which, I observe, hounds fly more readily than to the huntsman's voice. Good voices certainly are pleasing; yet it might be as well, perhaps, if those who have them, were less fond of showing them. When a fox is hallooed, those who understand this business, and get forward, may halloo him again; yet, let them be told, if the hounds go the contrary way, or do not seem to come on, upon the line of him, to halloo no more. With regard to its being the hunted fox, the fox which every man halloos is the hunted fox in his own opinion, though he seldom has a better reason for it than because *he* saw him. Such halloos as serve to keep the hounds together, and to get on the tail hounds, are always of use; it is the halloos of encouragement to the leading hounds, when injudiciously given, that spoil your sport. I am sorry to say, view halloos frequently do more harm than good. They are pleasing to sportsmen, but prejudicial to hounds. If a strong cover be full of foxes and they are often hallooed, hounds seldom take much pains in hunting them: hence arises that coldness and indifference, which may be sometimes observed in fox hounds when pursuing their game.” Hounds should never be taken off to a halloo, if they are running with a good scent; but if otherwise, and the halloo can be depended on, it may be advisable to lift or take the hounds to the spot, particularly if the fox is a great way before them, or persists in running his foil; as such foxes are difficult to kill, unless you get nearer to them by some means or other. Hounds may be hallooed too much. If they are often used to a halloo, they will expect it, and may trust perhaps to their ears and eyes more than to their noses. While hounds can get on with the scent, it cannot be right to take them off from it; but when they are stopped for want of it, it cannot then be wrong to give them every advantage in your power. A huntsman should nevertheless be cautious of going to a distant halloo. The halloo itself must, in a great measure, direct him; and though it affords no certain rule, yet you may frequently guess by it whether any reliance can be placed on it. However, if it is resolved to go to a halloo, the sooner the hounds reach it the better. Huntsmen who are slow at getting to a halloo are void of com-

mon sense. They frequently commit another fault by being in too great a hurry when they are there. "It is hardly credible (says Beckford) how much our eagerness is apt, at such a time, to mislead our judgment: for instance, when we get to the halloo, the first questions are natural enough:—Did you see the fox?—which way did he go?—The man points with his finger perhaps, and then away you all ride as fast as you can; and in such a hurry, that not one will stay to hear the answer which you all were so desirous of knowing: the general consequence of which is, you mistake the place, and are obliged to return to the man for better information."—In hunting the stag and the hare, halloos are used in a somewhat similar manner; though they should not be nearly so often resorted to with harriers as with fox hounds.—The English halloo is unquestionably derived from a similar term used by French sportsmen in wolf hunting, "*au Loup!*" (to wolf!) the sound of which, as every one acquainted with the French language will instantly recognise, is precisely similar.

It will be necessary here to remark, that, though the language of the chase, or rather the language used to hounds, is comprised under the general denomination of *Halloo*, yet the word itself, that is, halloo, is made use of in scarcely any other instance than when a hare starts before greyhounds:—on this occasion, a cry of *Halloo! Halloo!* is raised by the sportsmen, in order to induce the greyhounds to look out for their game and pursue it. As to the language of huntsmen to their hounds, though, as before observed, it is comprehended under the general term *Halloo*, yet it is branched out into a variety of sounds, all of which are of course understood by the hounds. It seldom happens indeed that two huntsmen have precisely the same tone, which, however, is of no consequence so long as the meaning is understood or correctly interpreted by the hounds: indeed, any peculiarity in the voice of a huntsman may be said to be advantageous to the hounds, as, under such circumstances, they can never mistake his voice for that of another. It is frequently difficult, in the general halloos of huntsmen, to discover any definite word, but the corruption of a well-defined expression may be mostly traced: *Yoic* is the word (or halloo) from which many of the corruptions or deviations may be traced. *Here, boy!* is also tortured into a variety of forms (if the expression may be allowed);

and indeed so many of these ill-defined deviations present themselves, that it is not possible to image them to the mind by any form of words on paper: at the same time, it may be justly remarked, that some of the terms (halloos) which seem to admit of no deviation, the most prominent of which, are *tallyho* and *whoo-whoop*, the former appears to have been derived from the French *au tailli*, to cover; though it is used in a sense somewhat different by English sportsmen.—*Tallyho!* is the term for a fox breaking cover or going away, and indeed every time he is viewed: *whoo-whoop* is used at the death, and constitutes of course what we call the death halloo.—*Whoo-whoop* is most likely derived from the same language as *tallyho*; and it is highly probable that most, if not all, our terms of the chase sprung from the same source, and were originally introduced by the Normans.

HALTER is that well-known convenience by which a horse is fastened to the manger when confined in the stable.

HALTER-CAST. This is an accident to which horses are constantly liable, and it very frequently happens; but, in general, from the inadvertency of leaving the rein of the halter of too great a length on either one side or the other: for when the horse is lying down, and has occasion (from itching, or some other cause) to rub his neck or head with the hind foot, it is no uncommon thing to have it get entangled in the halter-rein; which encircling the cavity of the heel, renders it impossible for the animal to extricate himself, unless the halter breaks in his favour; and during these struggles, the heel is sometimes so terribly excoriated, as to become not only a wound of much trouble, anxiety, and loss of labour, but often leaves a very vexatious blemish, never to be removed.

HALTING may be considered a limping, or slight impediment to free and easy action, implying some kind of perceptible defect or disquietude, not amounting to absolute lameness.

HAM, HOUGH, OR HOCK, is the joint in the centre of the hind leg; and although so wonderfully united for strength and action, is nevertheless the seat of serious injuries, as spavins, curbs, &c.

HAMBLETONIAN was bred by Mr. Hutchinson, of Skimpton, near York, and foaled in 1792; was got by King Ferus; dam by Highflyer; grand-dam by Matchem.—1795, May 5, when three years old, he won a stakes of fifteen gui-

neas each, over Hambleton, (five subscribers) beating Sober Robin, Tarquin, and another. At York, May 20, he won a sweepstakes of twenty guineas each, four subscribers. He was then purchased, with all his engagements, by Sir C. Turner, Bart. in whose possession he won, on the 27th of August, at York, a sweepstakes of 100 guineas each, (six subscribers) beating Benjamin, Minus, and Maximus. Two days after, he won a sweepstakes of fifty guineas each (four subscribers). At Doncaster, the 22nd of September, he won the St. Leger stakes of 25 guineas each, twelve subscribers. The next day he won the gold cup of 100 guineas value, four miles, beating Governor, Capsicum, and Bradamant. 1796, at the York August meeting, he won a subscription purse of 227l. 10s. beating Spread Eagle, Sober Robin, and another. The next day he won the ladies' plate, beating Lord Darlington's St. George. At this period of uninterrupted success, he was purchased by Sir Henry Tempest Vane, Bart. and at Doncaster, September 28, won the gold cup of 100 guineas value, beating Sir Robin, Ambrosio, and three others. In the Newmarket Houghton meeting, November 2, he beat Mr. Tatton's Patriot (who was got by Rockingham) over the Beacon course, for 1000 guineas. 1797, Monday, in the Newmarket Craven meeting, he won the Craven stakes of ten guineas each, beating Sober Robin, Bennington, Paynator, Hermione, Parisot, Cymbeline, and five others. The same day he received 250 guineas forfeit from Spread Eagle. On Thursday, in the same week, he beat Lord Clermont's Aimator, Beacon course, 300 guineas. At York, August 23, he won one third of the great subscription of 25 guineas each, (twenty-five subscribers) to which was added a 50l. plate given by the city. The next day he won another third of the same subscription, with an additional 50l. plate by the city, beating Benningbrough, Trimbush and Brilliant. At Doncaster, the 27th of September, he won the stakes of ten guineas each, (ten subscribers) with twenty guineas added by the corporation; and on the 29th, received 100 guineas forfeit from Mr. Sitwell's Moorecock. In 1798, he was slightly lame, and never started. 1799, Monday, in the Craven meeting at Newmarket, he beat Mr. Cookson's famous horse, Diamond, over the Beacon, for 3000 guineas, with the odds of five to four in his favour, on ac-

count of his superiority in size and strength; it being jocularly observed by the rider of Diamond at starting, that it seemed "a little like a race between a mare and her colt." This match was the greatest in popularity ever known from one extremity of the kingdom to the other, and was decided before one of the fullest meetings ever seen at Newmarket. It was won by no more than three parts of a length, to effect which, the winner had felt the utmost force of the spur; and, it was generally believed, if they had had then one hundred yards farther to have ran, Diamond would have been the winner; in proof of the justice of which opinion, Mr. Cookson challenged a repetition of the match, which was declined.

At Doncaster the same year, he won the renewed stakes of ten guineas each, (fourteen subscribers) with twenty guineas added by the corporation, beating eight of the best horses in the north of England. In 1800, he won the great subscription at York, with 50l. given by the city, which was the last time he started. He once ran out of the course, soon after starting, when running three miles over York, 1797, for a sweepstakes of 100 guineas each, against Deserter and Spread Eagle; and paid one forfeit to Sterling (from being amiss in 1792) at Newmarket; but never was beat.

HAND is the term for a mode of measurement by which the height of a horse is ascertained. A hand (so called originally from its breadth) is four inches; three hands is consequently one foot; and a horse of fifteen hands is exactly five feet high.

Bridle-hand. The left hand is so termed, in contra-distinction to the right, which is called the whip-hand.

To say a horse is light in hand, implies his being playful, lively, champing his bit, firm upon his haunches, and not dwelling upon the ground with his fore feet. A horse is heavy in hand, when, bearing his weight upon the bit, and lifting his fore legs with reluctance, he goes boring on, with no other sensation to the rider, than an eternal fear of his pitching upon his head. A vicious horse, breaking away with his rider, seems a dreadful sight to a spectator, but can never be attended with misfortune, if the rider is a good horseman, and has him "well in hand," which is, in fact, the power of "gathering him together," or stopping his career at pleasure.

Hand-gallop is that easy kind of pacing

adapted to the aged and infirm, who wish to obtain every possible degree of motion, most consonant to bodily ease ; it is the degree of equestrian action synonymous with, and more universally known by, the denomination of *canter* ; which is, in fact, the slowest, or most contracted, gallop, and can only be enjoyed by those who possess horses of good temper, and well broke for the purpose.

A colt said to be "taken in hand," implies his being brought from the field to be handled, quieted, led about, and stabled, previous to his being broke in for the saddle or harness.

HANDICAP. A handicap match, is A, B, and C, to put an equal sum each into a hat ; C, who is the handicapper, makes a match for A and B, who, when they have perused it, put their hands into their pockets and draw them out closed ; then they open them together, and if both have money in their hands, the match is confirmed ; if neither have money, it is no match. In both cases, the handicapper draws all the money out of the hat ; but if one has money in his hand, and the other none, then it is no match ; and he that has money in his hand is entitled to the deposit in the hat.

HARE. The hare is one of the most timid animals in nature : fearful of every danger, and attentive to every alarm, it is continually upon the watch ; and being provided with very long ears, which are movable at pleasure, and easily directed to any quarter, it is warned of the distant approach of its enemies. As the hare is destitute of the means of defence, nature has aided it with the powers of evasion in a surprising degree : every part and member of this animal seems peculiarly formed for celerity, and it is consequently one of the swiftest quadrupeds in the world. Its hind legs are much longer than the fore ones, and are furnished with strong muscles, which give it a singular advantage in running up a hill ; and of this it appears very sensible, as it is generally observed to fly towards rising ground when first started.

The colour of this animal is another great means of its preservation, as it often so much resembles the ground on which it sits, as not to be easily distinguished. In cold countries near the pole, where the ground is covered with snow the greater part of the year, the hare becomes white, or at least assumes the colour of the country it inhabits ; and it is thus rendered less conspicuous in those frigid regions.

Thus formed for escape, it might be supposed, the hare would enjoy a state of tolerable security ; but, although harmless and inoffensive in itself, it has no friend. Dogs of all kinds, as well as foxes, pursue it, seemingly by instinct ; wild cats, weasels, &c. catch and destroy it ; birds of prey are still more dangerous enemies ; while man, more powerful than all, makes use of every artifice to obtain

Free Handicap is an expression which frequently appears in race lists, the meaning of which is, that a number of horses being named, a weight is placed against the name of each, by the clerk of the races, or some disinterested person, who is well acquainted with the performances of the horses. These weights are supposed to be such as will bring all the horses as nearly on a par as possible ; and the list containing them being handed to the owner of each horse, they accept or decline according as they imagine the chances are for or against them.

HANDING A COCK. See **COCKING**.

HANDLING. A term applied by cockers to the judicious handling of a cock, when brought up from his walk, to ascertain whether he is in proper condition to be placed in the pens. This is done by a particular mode of taking the girth of the body by grasp, to discover the shape and substance, the bone, the probable strength, as well as the firmness or flaccidity of the flesh.

HARBOUR is a sporting term applicable to deer, and used in stag hunting. A stag is said to *harbour* when he goes to rest ; and to *unharbour* a deer is to dislodge him.

a creature which constitutes one of the numerous delicacies of his table.

According to naturalists, the hare lives six or seven years, and attains its growth in one; though there is much reason to believe, that, if undisturbed it would live much longer than the period just stated. It engenders frequently before it is a year old. The buck seeks the doe principally from the month of January to the month of April. The female goes with young thirty or thirty-one days, and brings forth generally two young ones (though they have been known to produce three or four) and deposits them in a tuft of grass or heath, or in a little bush, without any apparent preparation.

The ridiculous assertions which some writers on natural history have made, viz. of hares being generally hermaphrodites, or of changing their sex every month, as well as of possessing the power of superfetation, are too glaringly absurd to need a detailed refutation in this place. The circumstance which seems to have given rise to the first of these notions is the formation of the genital parts of the male hare, whose testicles do not obviously appear when he is young. Another reason is, that on the side of the penis, which is scarcely to be distinguished, there is an oblong and deep slit, the orifice of which, in some measure, resembles the vulva of the female. The male and female are known to the sportsman by the following distinctions: the head of the male is more short and round, the whiskers long, the shoulders more ruddy, and the ears shorter and broader than those of the female; whose head is long and narrow, the ears long, and sharp at the tip, the fur on the back of a grey colour, inclining to black, and in point of size she is frequently found smaller than the male. There is also considerable difference in the feet. In the male, the feet are small and pointed, and the nails short; whereas, in the female, they are much longer and more spread; the nails also are much longer.

Two species of hare may be distinguished: those of the wood, and those of the plain. The hares of the wood are in general much larger than those of the open ground; the fur is not of so dark a colour, and they are better covered with it; they are also supposed to be swifter in the chase, and their flesh to possess a finer flavour. These distinctions, however, are rather fanciful than real; but the following is true enough:—Among the hares of the plain, those may be distinguished which inhabit marshes; they are scarcely so large, perhaps not quite so swift, are less covered with fur, are darker coloured, and their flesh is neither so fine flavoured nor so delicate.

A young hare that has attained the full growth may be known from an old one by feeling the knee joints of the fore legs with the thumb nail. When the heads of the two bones which form the joint are so close, that little or no space is to be perceived between them, the hare is old. If, on the contrary, there is a perceptible separation, the hare is young; and is more or less so, in proportion to the separation of the bones. It may also be known whether a hare is old or young, but without pretending to ascertain the precise age, by compressing the under jaw bones: if they break at the point immediately

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under the fore teeth, upon a slight degree of pressure, the hare is certainly a young one; but if considerable force is required, the contrary may be inferred.

The hare is very prolific, and it is supposed the female will take the buck the latter end of the same season the early part of which gave it birth. In fact, were it not for its surprising fecundity, the species, in England, at least, would soon become extinct. To say nothing of its other numerous enemies, this animal appears to be the peculiar object of the poacher. There are various methods of taking them, and so little skill is required, that any bungler is able to execute his purpose. The wire snare is most commonly employed by the poacher, though hares may be covered on their seats in the day time with a net, much easier than a covey of partridges.

Those who are desirous of having hares very numerous in their parks or warrens, should destroy some of their buck hares before the rutting season; as, if the latter are left in great numbers, they will prevent the does breeding properly by their incessant teasing.

The hare, of which we have been speaking, is found in all the warm and temperate climates; but there remains the *white* or *Alpine hare* yet to describe. The alpine hare is smaller than the common hare, for the reason which we gave under the head of the ptarmigan or white grouse. The following is a particular description:—The alpine hare is about nine inches in length. It has a long head and whiskers; and above each eye there are two very long hairs. The ears are short and rounded. The fur is dusky at the roots, of a bright bay at the ends, slightly tipped with white, and intermixed with long dusky hairs; at first sight, the animal appears of a bright unmixed colour.

Such is the description of the alpine hare by one who has written on the subject; and who had perhaps an opportunity of examining a solitary individual. The fact is, that the alpine hare, like the ptarmigan, alters its appearance according to the season, and in winter, when snow covers those regions where it is found, it becomes so white as scarcely to be distinguished from the general colour of its abode. Like the ptarmigan, the alpine hare is found on the tops of the higher mountains of the Highlands of Scotland, and changes its colour according to the season of the year.

“ Their most southern residence (say naturalists) is on the Altaic chain of mountains near the lake Baikal, in Siberia; and they extend from thence as far northward as to Kamtschatka. They are always found in the middle regions of the snowy mountains, where these are clad with woods, and where herbs and moisture abound. They sometimes burrow between the rocks, but more frequently lodge in the crevices. They are generally found in pairs; but, in bad weather, they collect together, lie on the rocks, and whistle so much like the chirp of a sparrow as to easily deceive the hearer. On the report of a gun, they run off into their holes; whence, however, if nothing more is heard, they soon return.

“ By the usual wonderful instinct of similar animals, they make a provision against the rigorous season. A company of them, towards

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autumn, collect together vast heaps of favourite herbs and grasses, nicely dried; which they place either beneath the overhanging rocks, or between the chasms, or around the trunk of some tree. The way to these heaps is marked by a worn path; and in many places the plants appear scattered, as if to be dried in the sun and harvested properly. The heaps are formed like round or conoid ricks; and are of various sizes, according to the number of the society employed in forming them. They are sometimes about a man's height, and usually three or four feet in diameter.

"Thus they wisely provide their winter's stock; without which they must, in the cold season, infallibly perish; being prevented by the depth of snow, from quitting their chosen retreat in quest of food. They select the most excellent vegetables, and crop them when in their fullest vigour. These they make into the best and greenest hay, by the very judicious manner in which they dry them. The ricks they thus form are the origin of fertility among the rocks; for the relics, mixed with the dung of the animals, rot in the barren chasms, and create a soil productive of vegetation."

But to return to the hare, which is so numerous found amongst us, the author of an Essay on Hare Hunting says, that he has accurately noticed the refined senses of *smelling* and *hearing* which she possesses, particularly the latter. All the hare's dependance, says this writer, is on this talent alone; still, however, there is one inconvenience attending it, that whilst this sense of hearing is so exquisitely alive to any noise proceeding from behind, yet a hare under pursuit has but an imperfect aid from her ears straight before or sideways. It is this ability of hearing so accurately from behind that enables her to avoid the throw of the greyhound; and, when hunted, to continue her course till quite clear from the clamour of the hounds; although, at the same time, deaf to the noise of foes before, and having all her faculties employed on that single point of hearing and flying from the peril that pursues. On advancing such a seeming improbability, most of the sportsmen in England will smile, but let them ask any anatomist, who has inspected the structure of this creature's ears, and he will (says the writer) justify my assertion.

As the only mode of preservation the hare has is flying from danger, it is easy to perceive the reason of her being endowed with this exquisite sense of *sound*, by which she may receive timely information of the distant or near approach of her enemy; destitute of such quickness of hearing from behind, a hare might run herself blind, or until she died, after she was out of danger, from the want of being conscious that she was so. No sportsman can correctly assert, that a fresh hare started or coursed ever stops or turns her head to look back; how is she sensible then that she is clear from the enemy that pursued her? Her *ears* are her constant and unerring instructors.

It has been confidently mentioned, he continues, that a hare, when hunted, hearkens with one ear to the cry of the hounds, and stretches out the other as a sail to promote her course. This notion is ridiculous. Whenever she pricks her ears on end, or draws one apart from,

or forwarder than, the other, it is to listen more distinctly on that side the forwardest ear inclines to; had nature designed any singular aid to her feet from stretching forth the ears, she would have supplied her with *two pair*, one to lie flat upon the shoulders for listening, whilst she sailed by the other; and never would she have had more occasion for both, than when severely coursed, at which time the ears she has may be observed to lie close to the neck; and although she is compelled, when thus pressed, to try every shift to escape, this quality of sailing by the ears is never seen; both ears are very strictly applied to catch the smallest sound of the greyhound *behind*, by which she accordingly retards or increases her speed.

That Providence has furnished every creature with endowments proper for preservation, the attainment of food, and for defence, is obviously certain. Enquire of a country labourer, why an owl, at the dusk of the evening, sits on the barn door, or perches upon a gate post, rail, or beam?—his immediate answer will be, that it is watching for a mouse. A man, without being a very eminent naturalist, knows the owl is *hearkening*, rather than looking, for a mouse; its *ears* give it notice of the motions of its prey, long before its *eyes* distinguish it; but, in this nicety of hearing, it is to be remembered, that owls are circumscribed; their ears are chiefly excellent in hearing what happens *beneath*; their hearing is very imperfect when the sound proceeds from *before* or *sideways*, nor have they the least advantage in hearing any thing *above* them; admitting that they could hear acutely from *above*, to what purpose would it tend? They have not the least expectation of mice running over their heads, but directly the contrary; and for that reason, nature has befriended them in the confining their sense of hearing in perfection, to what passes *beneath* them.

The fox that roves about, and has various means of acquiring subsistence, depends greatly upon the faculty of hearing from *above*, which he possesses superior to most creatures, and equal to any. What principle, is it imagined, directs him in his prowlings, to lurk underneath, or climb the pear or plumb tree where the poultry roost?—not so much his eyes as his ears; a feather is scarcely moved but he hears it. On the other hand, the polecat's talent consists in hearing directly *forward*; he is deaf as an adder, both to his prey and to his danger, behind. This is not offered as conjecture, but as matter of fact, the animals' ears being constructed for such peculiar modes of hearing, especially the passage directing to the *os petrosum*, which, in an owl's ear, is produced further out above than below, for the better reception of sound *ascending*; in a fox, it is exactly the reverse, and calculated to intercept the least noise from *above*; in a polecat, far before, to take the *forward* sound; but the ear of the hare is supplied with a tube directed extremely *backward*. It is owing to these backward tubes that she perceives the smallest sound that comes from that quarter, and acts upon it so instantaneously for her preservation.

The deficiency of the hare's sight straight forward is generally known; and, when close pursued, the fear of the dogs takes away her

presence of mind, and she will frequently run against objects; from whence has arisen the vulgar notion of the hare running herself *blind*. Some insist that hares are of the tribe of *nocturnal* animals, that have imperfect sight in the day, and that their eyes are of a similar texture to those of cats or owls. I am no oculist (says the author) but if common reason may be attended to, it is natural to suppose that *night* or *day* is indifferent to the hare; and that she only prefers the former to relieve in, from its being the most favourable and least dangerous time. The disadvantage of wanting *quick* sight before may be accounted for from the situation of the eyes, which are fixed in the head at a distance from each other, like those of the horse; the eyes are formed to turn in their sockets every way; and it is evident that by so much as the eyes are turned out of the centre of sight to look *upward*, they can the less see *downward*; and by so much as they are strained towards the nose to see *forward*, they can be the less directed for sight *backward*, supposing the head to be steady and fixed, which is the case when a hare runs fast; at other times, she turns and manages her head as she pleases. In an even posture of body, the eyes appear situated to see quickest and best full on each side; whence it arises that a coursed or hunted hare does not see clear directly *forward*; and the reason is, that being chiefly apprehensive of danger from behind, she employs all her senses to escape that danger, and the more effectually to accomplish it, endeavours to see it, and strains her eyes as *backward* as possible, according to the degree of terror she is in; so that she becomes (for want of a due proportion of her vision employed forward) frequently a victim to the enemy before her. Any person may experience the truth of the foregoing remark, that will cast his eyes upward or downward, or from side to side; he will soon find, when he points them in one direction, how imperfect his sight is in the other.

Whether a hare's eyes receive any inconveniency from being so large and convex, or that they suffer damage by being exposed night and day to dust and prickles, from the lids not covering them completely, cannot be determined; but it is certain that hares do not see so perfectly before as *sideways* or *aslant*; and indeed nature has in some measure compensated for this defect, and likewise that of not hearing forward, by an incomparable sense of *smelling*; not the sort of smelling peculiar to hounds, but that species which sportsmen term *winding*, as when a dog holds up his nose on smelling carrion. The hare has this faculty in such perfection, that, with the wind in her favour, she will never come within a certain distance of a person, however closely concealed.

Some believe (continues the author) that hares propagate but *once* a year, but they breed from February to the end of harvest. The paps of the doe come forwarder under her belly, than those of almost any other quadruped; she does not long suckle her young; if she did, and had many, the udder would be drawn too big, and lie inconveniently whilst the hare was running; she brings forth differently from the rabbit, her offspring being completely formed and quick-sighted the instant they are dropped.

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It is a well experienced truth that some places are remarkable for being seldom without hares; and others (although as likely in all appearance) rarely with any. Whether it is any particular excellence in the *feed*, in the situation for *forming* advantageously, for warmth, hearing, or seeing, that induces them to prefer certain spots to others, or that on the death of a buck or doe another succeeds, and they possess their usual circle, cannot be ascertained; but the fact is perfectly established.

The following circumstance will prove that the hare, when alarmed, sees but very imperfectly forward:—In Sandpit Wood, in the parish of Terling, in Essex, a pack of fox-hounds, very early in the season of 1782, had just unkennelled, and the hares, of which, as well as of the foxes, there were plenty in the cover, were many of them disturbed. In one of the paths, a hare met and ran against a terrier that was hastening to the cry, with such velocity, that both animals were apparently killed: the dog, with some difficulty, was restored, but the hare's skull was completely fractured.

In a wood belonging to Mr. Corbet, of Strawberry Park, in Shropshire, a hare very nearly of a pure white, was killed in November, 1797, which weighed upwards of nine pounds; and a singular account is given for this change of colour, which is imagined to have proceeded from the animal being overheated, to which its *terror* probably added: a much more reasonable way, however, of accounting for this change of colour, would be to ascribe it to the effect of age:—the writer has, at various periods, seen several very light coloured or white hares, which were all remarkable for age. It is certain that when a hare becomes what may be called old (four years of age, for instance) she assumes a lighter colour, she becomes grey, (strictly according to the general system of nature) and this lighter colour continues to whiten as long as she lives. All old hares are difficult to kill, and the striking fact of the one above mentioned so often beating the dogs, serves to confirm the idea that her colour proceeded from age rather than from any adventitious circumstance. She was well known to have been often coursed by greyhounds; and some time before her death, she was run by three greyhounds: one of the dogs caught and died with the hare in his mouth, and she made her escape; the other two greyhounds were to all appearance dead; but by bleeding and proper treatment they recovered. As a proof of its being the same hare, half of the scut remained in the dog's mouth that died, and when the hare was killed she wanted that part. She was at last chopped by a pointer upon her seat; and her skin was preserved as a curiosity.

An old hare, which has been repeatedly run, does not easily surrender her life. One of this kind, grown nearly white with age, was well known in the parish of Lathom, in Lancashire, about the year 1807. The writer saw her coursed several times, and she uniformly escaped. The last time he saw her run was by two excellent dogs belonging to Mr. T. Brandreth, of Ormskirk, one of them in particular, a light coloured dog, called Topper, was supposed to be the fleetest greyhound in that part of the kingdom. The course exhibited

a desperate struggle between the hare and the dogs, during which two other dogs that were upon the ground accidentally broke loose, and joined in the pursuit. The hare, however, beat them all.

In February, 1804, a hare, completely *white*, was started by the Lisburn club hounds, and after a chase of nearly an hour was taken alive.

In further confirmation of the difficulty of killing an old hare, the writer will take leave to mention, that a hare had for several years frequented a particular corner of the township of Maghull, eight miles on the north road from Liverpool. She was repeatedly seen in the garden belonging to Henry Meadows, the village blacksmith, as well as several other gardens in the immediate neighbourhood. She had many times beaten the greyhounds; and in the winter of 1824-1825, she was repeatedly run by the harriers of R. Seed, Esq. as well as coursed by greyhounds. The writer, who generally followed the harriers just mentioned, was, upon one occasion, accidentally afforded an opportunity of observing this hare's manœuvres, when she was before the harriers, and was much surprised at the extraordinary sagacity manifested by her. She was one day pressed so hard by these staunch little harriers, that, after a long and a hard run, she was under the necessity of crossing the canal, which saved her life. This hare was always to be found at home; and whenever the harriers were at a loss for diversion, they knew where to procure a run.

One of the "mean, murderous, coursing crew," who lived in a neighbouring township, and was proud of his greyhounds, visited Maghull, found the hare, and was beaten by her. A few days afterwards, he run her with a leash of greyhounds, and two couple of beagles; and yet she escaped. Bent on her destruction, the courser, a few days afterwards, again came to Maghull, accompanied by two couple of greyhounds, and three couple of beagles. The hare was well known in the neighbourhood, and, from her gallant conduct so many times, had become a great favourite; when therefore such a murderous phalanx appeared, accompanied by a host of myrmidonian bipeds, it created a sort of ferment in the village. The man's former conduct had excited the most superlative disgust of the sportsmen in the neighbourhood, and had filled the village with murmurs of disapprobation. The women upbraided the courser as he passed along; but he proceeded, regardless of the taunts and wordy war. Six beagles and four greyhounds against one poor hare!!!

The hare, as usual, was easily found, and beat the four greyhounds handsomely; but the business was not to end here. The poor hare was again put up by the beagles, and again she beat the tremendous odds which had been arrayed against her. Again the beagles were put upon her foot, again she was viewed, and, as a last resource, made her way into the garden of Henry Meadows, the village blacksmith. Here she was surrounded, not only by the dogs, but the myrmidonian band before mentioned; the latter repeatedly struck at the hare with their staves, and the poor animal thus unfairly lost its life—was thus miserably murdered! Henry Meadows, who had watched the operations of these *highly accomplished sportsmen*,

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through one of the windows of his shop, no sooner heard the foul death cry of his old acquaintance, than, snatching the fiery bolt from his forge, he charged the semi-assassins with the utmost fury; who thereupon took to flight, leaving the village amidst the general execrations of the rustics.

In Siberia, were once seen by Mr. Muller, two hares of a jet black and wonderfully fine gloss; and in the winter of 1768, a third was taken near Casan: these exceeded the common hare very much in bulk.

A black hare was seen by Captain Colquitt, R. N. in the winter of 1822, in the neighbourhood of Seacombe, in Cheshire.

In February, 1789, the hounds of Mr. Barnard, of Linsell Hall, found a hare near Falsted, in Essex, which was taken alive, out of a drain in a farm yard, after running upwards of twenty miles in a little less than two hours.

In October, 1792, a hare after a chase of sixteen miles by the Seaford hounds, took the sea near Cuckmere, in Sussex, and swam a quarter of a mile from shore, before she was overtaken by the dogs.

Mr. Pleydell's harriers, hunting in the Isle of Purbeck, in 1795, found a hare, which, after some running, took towards the sea, and on the edge of one of the highest cliffs the hounds came to a check. A cast was made both to the right and left without effect; and some foot people having seen the hare exactly at that spot, without being able to view her afterwards, both hounds and sportsmen were at a loss, as it appeared impossible for her to have got down the rocks alive, and if she had been killed at the bottom she must have been seen. While each man was giving his opinion, the hare was perceived in the sea, dead, and continually rolling over with the waves. A person who knew where he could descend the precipice, went and brought her up. Upon examining her, both thighs were found to be broken. The cliff was at least seventy feet high, and as the sea was at some distance from its bottom, the animal must have leaped from the summit as far as she was able, or could not otherwise have reached the water. The most remarkable part of the circumstance is, that the hare should have taken this extraordinary leap, when the hounds were not within a quarter of a mile of her, and consequently there was no immediate escape from the hounds to incite this uncommon act of self destruction.

Lord Ongley's harriers, in March, 1798, in the course of a very hard chase of three hours, ran a hare through part of eight parishes, and three counties.

Mr. Feuston's harriers found a hare at Metfield, which ran through seven parishes in Suffolk, then crossed a river, and after a chase of four hours and a half, was killed at Mendham, in Norfolk.

It is not unfrequent in an inclosed country for the hare to betake herself to the wood or brick drain, when over-rated by the greyhound; and there was once a story published of some *sportsmen*, who blocked up this sort of retreat the *fourth* course, although poor pussy had thrice beaten their dogs. Yet this is not so bad as the conduct of the courser previously mentioned.

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Hares are sometimes killed by hawking, and the Iceland hawk is used for this quarry; the hare, however, feels the hawk's superiority so much, that she would not stir, were she not impelled by a dog to keep upon her legs; the poor animal is thus placed betwixt two enemies, and some time generally elapses before the hawk gives the *coup de grace*.

The hare's most favourite food is pinks, parsley, carrots, and birch; in hard weather they will eat haws; and in young plantations they are highly injurious by eating the bark from the trees, which they will do from almost every sort, the alder and lime amongst the exceptions.

Hares will do great mischief among flowering shrubs, and are fond of Spanish broom, scorpion senna, and evergreen cytissus. The following mixture, which answers very well in the preservation of trees, is not so easily applied to shrubs; but by circling their branches with new tar twine, put several times round the shrub, it has had the desired effect. The tar twine, exposed to the air and rain, will lose its smell and must occasionally be renewed:—Take any quantity of tar, and six or seven times as much grease, mixing them well together: with this composition, brush the stems of young trees as high as rabbits and hares can reach, and it will effectually prevent their being *barked*.

Hares and rabbits have an aversion to tar, which, though fluid, when exposed to the sun and air, contracts great dryness and a very binding quality, and if applied to trees in a pure state will perhaps occasion them to become bark bound: the addition of the grease, before mentioned, prevents this effect.

In the year 1798, a Suffolk gentleman was obliged to destroy his hares near some new plantations; and the amount of what was known to have fallen victims, was *five hundred and forty-one brace*!

Lord Craven, in December, 1804, in the course of a few days, killed in Ashdown Park, *eight hundred brace*!

We have already remarked, that the hare generally brings forth two at time, sometimes three; but, in the spring of 1799, in the orchard of W. Cole, of Helions Bumpsted, in Essex, seven young hares were found in one form; and what was very remarkable, if true, (which we very much doubt) each leveret was marked with a star of white in its forehead.

According to Buffon, the hare is the only animal which has hair in the inside of its mouth. The breast of the hare is narrow, and at the same time, the *chest* is most capacious. During the time of its being hunted, the lungs are in a continual state of violent expansion, and by the frequent inspiration and expiration become in the end so vastly distended, as to require a much larger space than is assigned for the purpose; the chest therefore is fashioned to receive more breath, or give the lungs more room to perform their office, than in any other creature.

A brace of hares (the doe pregnant when shut up) were inclosed in a large walled garden, and proper plants supplied for their sustenance. At the expiration of twelve months the garden was examined,

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and the produce was *fifty-seven* hares, in all ! So at least it is recorded ; but at there is neither name nor date attached to it, we cannot help entertaining some suspicion as to its correctness. Hares are unquestionably very prolific ; and, when thus placed at their ease in the midst of plenty, would be more so than in a state of unlimited freedom, exposed to all the attacks of their numerous enemies, yet, fifty-five young, in one year, partakes somewhat of the marvellous.

Hares, it is said, are subject to *fleas* ; and in summer very much annoyed with *ticks*, which, at that season, swarm in the woods. The writer never recollects observing either of these insects upon the hare ; but sportsmen seldom take the pains, we apprehend, to examine. Linnæus tells us that cloth made of hares' fur will attract the former insects, and preserve the wearer from their troublesome attacks : Linnæus is an *awful* authority ; yet few thinking people will give implicit credit to what has been just stated.

There are instances recorded of persons who felt as violent an antipathy to the hare as others have manifested towards a cat. The old Duke d'Eperon, who owed his fortune to his courage, used to faint at the sight of a leveret ; and General Monckton, soon after his return from Quebec, where he had shewn so much heroism as a soldier, and so much affection as a friend, as he was one evening knocking at his own door, fainted away at seeing a cat upon the walls of the area.

Our ancestors deemed it impious to taste the flesh of the hare ; their descendants, on the contrary, brave pains and penalties to obtain it for their tables. The Romans reckoned a young hare a great delicacy, and the *wing* the best part, which our forefathers threw to the dogs.

Pliny, with some degree of doubt, observes, that the flesh of the hare causes *sleep*, and that those eating it look *fair, lovely, and gracious* for a week afterwards. Pliny was an author of great merit, and might be a very honest man, but he was certainly a very credulous writer.

However, let the properties of this animal be what they may, in regard to what has just been stated, the hare was in ancient days preserved as an omen ; and Boadicea, Queen of the Britons, let loose a concealed hare from her bosom immediately before her conflict with the Romans, which, by taking (what by her soldiers was thought) a *fortunate* course, animated them to such a degree that they fought with the most undaunted resolution, and threw the disciplined legions of Rome into confusion.

When Arnold besieged Rome, a hare ran towards the walls and the Germans pursued ; a panic having seized the Romans they deserted the gate, and the Germans became master of the city.

Hares are said to foresee the changes of the weather, and to seat themselves accordingly. Hare finders are in some degree, directed by the wind in looking for hares, which, however, seldom sit in the middle of a field, but at no great distance from the hedge which surrounds it. Shepherds on the Downs assert, that hares have a variety of seats, which, as the weather directs, they change from time to time, and return to again ; and that the more rain that falls, the

nearer to the tops of the hills will the hares seat themselves. When sitting, the hare covers her hind legs with her belly, her fore legs are extended forward, and her chin appears to rest upon them. The author of the Rural Sports, the Rev. W. B. Daniel, observes, that when a hare is seen sitting, its sex may be known:—"if a *buck*, the ears will be close together; those of the doe will be distended on each side of the neck and shoulders." Experienced sportsmen will look for more unquestionable indications upon which to form an opinion in this respect than the very doubtful one just mentioned, which have been already noticed in the course of this article. But the Rev. Author in question makes use of several assertions respecting the hare, which, if they have no other effect, at least manifest his consummate ignorance of the subject. An experienced sportsman will be abundantly convinced of this, when he reads what the Rev. Mr. Daniel asserts in regard to the position of the hare on her seat: it is very evident the Rev. Gentleman never saw a hare on her seat.

The hare is subject to a disease very similar to the *rot* in sheep; and numbers are sometimes found dead in a wet season, particularly on the marshy and low lands; though, on the *mosses* (morasses) in Lancashire and the north of England, they suffer less from this disease than on low wet meadows.

Mr. White, in his History of Selbourne, gives a curious instance of a leveret being suckled by a cat. He says, a leveret was brought to him, which the servants fed with a spoon; about the same time that the leveret arrived, the cat had kittened, and her progeny was destroyed: the leveret was soon lost, supposed to have been killed; however, after a fortnight, Mr. White, being in his garden, observed the cat trotting up to him, making that short call that a cat uses to its kittens, and something gambolling after her, which proved to be the leveret which the cat had supported with her milk, and continued to cherish with great affection. This strange attachment (says Mr. W.) was perhaps occasioned by those maternal feelings which the loss of her own young had awakened, and by the ease she derived to herself, from having her teats, too much distended with milk, drawn by the leveret, until from habit, she became as much attached to the leveret, as if it had been her own offspring.

Dr. Darwin relates that the Rev. Mr. Sawley of Elford, near Litchfield, having taken out the young ones from a hare he had shot, which were alive, he gave them to a cat, which had just lost her kittens. The cat carried them away, as it was supposed, for the purpose of eating them; but it afterwards appeared to have been affection, and not hunger, which had incited her, as she suckled and reared them with all possible care and attention.

A similar circumstance happened a few years ago to a Mr. Harrop of Liverpool, with this difference, however, that the foster parent was a bitch instead of a cat.

A spaniel bitch, at Dyne's Hall, in Essex, the seat of Mr. Sperling, whose whelps had just been drowned, brought home a leveret from the plantations adjoining the house, which she suckled, and for which she testified the utmost affection.

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In covers where it is wished for hares to be preserved, no pains should be spared to render them dry at the bottom, if they are not naturally so : if the extent be considerable, walks should be cut ; if small, a circular one near the side will answer the purpose. Furze covers are good preserves, particularly if mixed with broom. If the ground be prepared on purpose, spaces should be left for the purpose of sowing parsley, of which hares are remarkably fond, as already stated. No dog should be allowed to enter the cover, and all kinds of vermin should be carefully destroyed, particularly weasels, stoats, and polecats. This part of the business should be confided to a trusty and skilful gamekeeper ; or to some person well acquainted with the various modes of destroying vermin.

The idea that rabbits and hares will not live together is perhaps erroneous, at least as far as relates to the generally received opinion of the antipathy which these animals naturally entertain—it is true, hares are not often found in a rabbit warren ; nor are they found in great plenty perhaps where rabbits are numerous ; but this, we are inclined to think, arises from some other cause than a natural aversion.

Of the susceptibility of the hare for education, we have several recorded instances, which may be relied on. In 1564, a hare was exhibited in England, which not only danced to measure, but to the astonishment of beholders, played with its fore feet upon a tabaret, and observed a correct number of strokes. Afterwards the hare fought with a dog (no doubt instructed for the purpose) when it bit with its teeth, and beat forcibly with its feet.

Still more complete was the education of the hare exhibited some years ago at Sadler's Wells, which beat a drum with its fore feet while a person carried it round the stage. It is said that the hare is partial to the sound of the drum, and that on this account she has been frequently found in the heart of various camps. Hares will frequently sit in the immediate vicinity of a dog kennel. At the latter end of the year 1822, a hare took up its position in a small orchard belonging to the writer, within ten yards of a wooden kennel, to which a dog was constantly chained. She formed several seats, all within very short distances (none exceeding twelve yards) and thus continued to reside for nearly two months, no way alarmed by the frequent barking of the dog. She was often seen, but never disturbed, and her death, which was a sort of accidental occurrence by a neighbour's greyhound, excited considerable regret.

Mr. Barlace asserts, that he saw a hare so familiar as to feed from the hand, lie under a chair in the parlour, and appear altogether as easy and comfortable as a lap dog. It sometimes went into the garden ; but, after regaling itself, always returned to the house as its proper habitation. Its usual companions were a greyhound and a spaniel, both so fond of hare hunting that they were frequently questing or trying in the fields by themselves. With these dogs the hare spent the evenings ; they always slept on the same hearth, and very often would rest themselves by lying upon parts of each other.

We will close the present article by the interesting account given

by Cowper, the poet, of the habits and manners of the domestic hare :—

In the year 1774, being much indisposed both in mind and body, incapable of diverting myself either with company or books, and yet in a condition that made some diversion necessary, I was glad of any thing, that would engage my attention without fatiguing it. The children of a neighbour of mine had a leveret given them for a plaything ; it was at that time about three months old. Understanding better how to tease the poor creature than to feed it, and soon becoming weary of their charge, they readily consented that their father, who saw it pining and growing leaner every day, should offer it to my acceptance. I was willing enough to take the prisoner under my protection, perceiving that, in the management of such an animal, and in the attempt to tame it, I should find just that sort of employment which my case required. It was soon known among the neighbours that I was pleased with the present, and the consequence was, that in a short time I had as many leverets offered to me, as would have stocked a paddock. I undertook the care of three, which it is necessary that I should here distinguish by the names I gave them—*Puss*, *Tiney*, and *Bess*. Notwithstanding the two feminine appellatives, I must inform you that they were all males. Immediately commencing carpenter, I built them houses to sleep in ; each had a separate apartment, so contrived that their ordure would pass through the bottom of it ; an earthen pan placed underneath each received whatever fell, which, being duly emptied and washed, they were thus kept perfectly sweet and clean. In the day-time they had the range of a hall, and at night retired each to his own bed, never intruding into that of another.

Puss grew presently familiar, would leap into my lap, raise himself upon his hinder feet, and bite the hair from my temples. He would suffer me to take him up and carry him about in my arms, and has more than once fallen fast asleep upon my knee. He was ill three days, during which time I nursed him, kept him apart from his fellows, that they might not molest him (for, like many other wild animals, they prosecute one of their own species that is sick), and by constant care, and trying him with a variety of herbs, restored him to perfect health. No creature could be more grateful than my patient after his recovery ; a sentiment which he most significantly expressed by licking my hand, first the back of it, then the palm, then every finger separately, then between all the fingers, as if anxious to leave no part of it unsaluted ; a ceremony which he never performed but once again on a similar occasion. Finding him extremely tractable, I made it my custom to carry him always after breakfast into the garden, where he hid himself generally under a cucumber vine, sleeping or chewing the cud till evening ; in the leaves also of that vine he found a favourite repast. I had not long habituated him to this taste of liberty, before he began to be impatient for the return of the time when he might enjoy it. He would invite me to the garden by drumming upon my knee, and by a look of such expression as it was not possible to misinterpret. If this rhetoric did not imme-

diately succeed, he would take the skirt of my coat between his teeth, and pull at it with all his force. Thus *Puss* might be said to be perfectly tamed, the shyness of his nature was done away, and on the whole it was visible by many symptoms, which I have not room to enumerate, that he was happier in human society than when shut up with his natural companions.

Not so *Tiney*; upon him the kindest treatment had not the least effect. He too was sick, and in his sickness had an equal share of my attention; but if, after his recovery, I took the liberty to stroke him, he would grunt, strike with his fore feet, spring forward, and bite. He was, however, very entertaining in his way; even his surliness was matter of mirth, and in his play he preserved such an air of gravity, and performed his feats with such a solemnity of manner, that in him too I had an agreeable companion.

Bess, who died soon after he was full grown, and whose death was occasioned by his being turned into his box, which had been washed, while it was yet damp, was a hare of great humour and drollery. *Puss* was tamed by gentle usage; *Tiney* was not to be tamed at all; and *Bess* had a courage and confidence that made him tame from the beginning. I always admitted them into the parlour after supper, where the carpet afforded their feet a firm hold; they would frisk, and bound, and play a thousand gambols, in which *Bess*, being remarkably strong and fearless, was always superior to the rest, and proved himself the *Vestris* of the party. One evening the cat being in the room, had the hardiness to pat *Bess* upon the cheek, an indignity which he resented by drumming upon her back with such violence, that the cat was happy to escape from under his paws and hide herself.

I describe these animals as having each a character of his own. Such they were in fact, and their countenances were so expressive of that character, that, when I looked only on the face of either, I immediately knew which it was. It is said that a shepherd, however numerous his flock, soon becomes so familiar with their features, that he can, by that indication only, distinguish each from all the rest; and yet, to a common observer, the difference is hardly perceptible. I doubt not the same discrimination in the cast of countenances would be discovered in hares, and am persuaded that, among a thousand of them, no two could be found exactly similar; a circumstance little suspected by those, who have not had an opportunity to observe it. These creatures have a singular sagacity in discovering the minutest alteration that is made in the place to which they are accustomed, and instantly apply their nose to the examination of every new object.

A small hole being burnt in the carpet, it was mended with a patch, and that patch in a moment underwent the strictest scrutiny. They seem too to be very much directed by the smell in the choice of their favourites: to some persons, though they saw them daily, they could never be reconciled, and would even scream when they attempted to touch them; but a miller coming in engaged their affections at once; his powdered coat had charms that were irresistible. It is no wonder that my intimate acquaintance with these specimens of the kind

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has taught me to hold the sportsman's amusement in abhorrence ; he little knows what *amiable* creatures he persecutes, of what gratitude they are capable, how cheerful they are in their spirits, what enjoyment they have of life, and that impressed, as they seem, with a peculiar dread of man, it is only because man gives them peculiar cause for it.

That I may not be tedious, I will just give a short summary of those articles of diet, that suit them best.

I take it to be a general opinion that they graze, but it is an erroneous one, at least grass is not their staple ; they seem rather to use it medicinally, soon quitting it for leaves of almost any kind. Sow-thistle, dent-de-lion, and lettuce, are their favourite vegetables, especially the last. I discovered by accident that fine white sand is in great estimation with them ; I suppose as a digestive. It happened that I was cleaning a bird-cage while the hares were with me ; I placed a pot filled with such sand upon the floor, which being at once directed to by a strong instinct, they devoured voraciously ; since that time I have generally taken care to see them well supplied with it. They account green corn a delicacy, both blade and stalk, but the ear they seldom eat : straw of any kind, especially wheat straw, is another of their dainties ; they will feed greedily upon oats, but if furnished with clean straw never want them ; it serves them also for a bed, and, if shaken up daily, will be kept sweet and dry for a considerable time. They do not indeed require aromatic herbs, but will eat a small quantity of them with great relish, and are particularly fond of the plant called musk : they seem to resemble sheep in this, that, if their pasture be too succulent, they are very subject to the rot ; to prevent which, I always made bread their principal nourishment, and filling a pan with it cut into small squares, placed it every evening in their chambers, for they feed only at evening and in the night : during the winter, when vegetables were not to be got, I mingled this mess of bread with shreds of carrot, adding to it the rind of apples cut extremely thin ; for, though they are fond of the paring, the apple itself disgusts them. These however not being a sufficient substitute for the juice of summer herbs, they must at this time be supplied with water ; but so placed that they cannot overset it into their beds. I must not omit that occasionally they are much pleased with twigs of hawthorn, and of the common briar, eating even the very wood when it is of considerable thickness.

Bess, I have said, died young ; *Tiney* lived to be nine years old, and died at last, I have reason to think, of some hurt in his loins by a fall : *Puss* is still living, and has just completed his tenth year, discovering no signs of decay, nor even of age, except that he is grown more discreet and less frolicsome than he was. I cannot conclude without observing, that I have lately introduced a dog to his acquaintance, a spaniel that had never seen a hare to a hare that had never seen a spaniel. I did it with great caution, but there was no real need of it. *Puss* discovered no token of fear, nor *Marquis* the least symptom of hostility. There is therefore, it should seem, no natural antipathy between dog and hare, but the pursuit of the one

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occasions the flight of the other, and the dog pursues because he is trained to it : they eat bread at the same time out of the same hand, and are in all respects sociable and friendly.

I should not do complete justice to my subject did I not add, that they have no ill scent belonging to them ; that they are indefatigably nice in keeping themselves clean, for which purpose nature has furnished them with a brush under each foot : and that they are never infested by any vermin.

May 28, 1784.

Memorandum found among Mr. Cowper's papers.

Tuesday, March 9, 1786.

This day died poor *Puss*, aged eleven years eleven months, He died between twelve and one at noon, of mere old age, and apparently without pain.

The underwritten epitaph on *Tiney* was by his old master.

Here lies, whom hound did ne'er pursue,
Nor swifter greyhound follow,
Whose foot ne'er tainted morning dew,
Nor e'er heard huntsman's hollo'.

Old *Tiney*, surliest of his kind,
Who, nursed with tender care,
And to domestic bounds confined,
Was still a wild *Jack-hare*.

Though duly from my hand he took
His pittance every night,
He did it with a jealous look,
And, when he could, would bite.

His diet was of wheaten bread
And milk, and oats, and straw ;
Thistles, or lettuces instead,
With sand to scour his maw.

On twigs of hawthorn he regaled,
On pippins' russet peel,
And, when his juicy salads failed,
Sliced carrot pleased him well.

A Turkey carpet was his lawn,
Whereon he loved to bound,
To skip and gambol like a fawn,
And swing his rump around.

His frisking was at evening hours,
For then he lost his fear,
But most before approaching *showers*,
Or when a *storm* drew near.

Eight years and five round rolling moons
He thus saw steal away,
Dozing out all his idle noons,
And every night at play.

I kept him for his humour's sake,
 For he would oft beguile
 My heart of thoughts that made it ache,
 And force me to a smile.

But now beneath his *walnut* shade
 He finds his long last home,
 And waits, in snug concealment laid,
 Till gentler *Puss* shall come.

He, still more aged, feels the shocks,
 From which no care can save,
 And, partner once of *Tiney's* box,
 Must soon partake his grave.

HARE HUNTING. This diversion lieve the poet, it formed one of the amuse-
 is of very ancient date:—if we are to be- ments of the mighty Nimrod:—

Bold Nimrod first the lion's trophies wore,
 The panther bound, and lanc'd the bristling boar;
 He taught to *turn the hare*, to bay the deer,
 And wheel the courser in his mid career.

TICKELL.

Zenophon, who lived three hundred and fifty years before Christ, has left many observations upon hunting the hare. He says the *trail* (the track taken by the hare in going to her seat in the morning) is long in proportion to the length of the night. In the winter there is no scent early in the morning, when there is either a hoar or a hard frost. The hoar frost, by its force contracts and retains all the warm particles in itself, and the harder frost congeals them: in these cases, dogs

with the most delicate noses cannot touch, before the sun dispels the frost, or the day is advanced,—when the trail yields a scent as it evaporates. The trail is also spoiled by much dew, and by showers after a long drought; which, by extracting scents from the earth, hunt the scent of the hare until the ground is dry again. The *south winds* are injurious (he says) by spreading moisture! An English sportsman will start at such an assertion:—the song says, and says truly—

“ A southern wind, and a cloudy sky
 Proclaim a hunting morning.”

But to proceed with Zenophon:—The north winds, if not too severe, preserve it. Rains and drizzling mists drown, and the heat of the moon, at full, destroys it; the trail is likewise the most irregular, for in the light the hares play together, and throw themselves very differently than when at feed. In the winter, autumn, and summer, the trail is for the most part straight; in the spring it is more perplexed; for, though these animals copulate at all times, they do it chiefly at that season, and their wandering on that account, in search of each other, occasions it.

The scent of a hare going to her seat, lasts longer than that of her course when pursued; in going to her form she proceeds slowly and stops often; but her course when chased, is performed running; therefore the ground is saturated with the one, and not filled with the

other. The scent is stronger in woods, whether she proceed slowly or otherwise, for there she is touched by many things. The hare makes her seat under, upon, or within any thing that covers the surface of the earth; in spring she prefers cultivated places to the mountains; but, wherever seated, there she continues while the hounds are trailing to her, unless she has been much disturbed in the night, when she will sometimes move. The scent of young hares is stronger than of those full grown, on account of the weakness of their limbs suffering their whole body to touch the ground. The hares of the mountains are swifter than those bred in the plains; the marsh hares are the slowest of any; those hares which wander in all places are the most subtle and difficult to pursue: those of a year old, will run the first ring swiftly, but

not at all afterwards, being very active, but weak. Those that are met with in open situations, run the longest, on account of their being used to the light; those in woody places, the reverse, being hindered by the darkness.

When the hare is started, there should be no hallooing, lest the hounds, being thus made too eager, should not stoop to the scent. Hares are most conspicuous when running over ploughed land. If they perceive the dogs, they stop, and, sitting on their breech, raise themselves up and listen if they hear any opening of the hounds near them, and then turn from the spot where they hear it; but if there be no noise, they will, of their own accord, return by the same track to where they were first disturbed from. Their eyes project, and their eye-lids are not sufficiently long to protect the ball, which, added to the quantity of sleep the hare takes, renders her sight indistinct; the swiftness of its pace contributes also to dazzle it; for a hare that is pressed by the dogs passes by every object before she perceives what it is, on which account she often runs against many things.

Zenophon's formation of the hare is not worth recapitulation, on account of what has been already stated in the preceding article. But being so constructed, he observes, it is impossible but that the hare must be strong, agile, and light; as a proof of her lightness, when going without being alarmed, she always leaps, throwing the hinder beyond the fore feet; and she runs in that manner, as is manifest in snow. Her tail is inconvenient in running, being unable, on account of its shortness, to guide her body; but she does that with either of her ears; and when nearly taken by the dogs, she lays down the ear on the side whence she apprehends the danger, by which means she turns instantly, throwing the dogs that are dashing at her a great way behind.

When hunting in cultivated lands, the sportsman should avoid injuring the fruits of the earth that are in season; and where no game is found all the hunting apparatus should be entirely taken away.

Hounds ought to be hunted every day, if well and the weather suitable; but should never be taken out to hunt, unless they eat their food heartily, their refusal being a sign of ill health. A high wind is unfavourable to hounds, as it dissipates the scent, and prevents their hearing each other; neither can the toils or nets stand; they should never be suffered to hunt

foxes, as that does them the greatest injury, and renders them unsteady to their own game.

The places of hunting should be frequently changed, in order that the dogs and the sportsman himself may obtain a thorough knowledge of the country. An early hour is necessary, that the trail may not be gone. The huntsman's dress should be light, and he should have a pole in his hand, the man who carries the nets following him; and they should proceed silently, lest the hare should steal away before the nets and toils are placed.

The best time for breeding hounds is in winter, when the labours of the chase are over, on account of the quiet of that season, and the approach of spring, which is the time of the year best agreeing with the growth of dogs. The bitches should be shut up with the best dogs, and whilst in whelp should not often be taken out, lest the exertion should injure them.

When the whelps can run about, they should have nothing but milk for the first year; for the filling them with too heavy food will distort their legs, fill their bodies with diseases, and hurt their insides. The bitch puppies should be first taken out to hunt at eight months old, and the dogs at ten; they should not be let loose during the trail; but, being controlled by long leather slips, should be allowed to follow the hounds that were trailing.

When the hare was started, if the whelps promised to have much foot, they were not to be slipped immediately, but after the hare was got out of sight; for those that are high mettled and swift of foot, if let go while the hare is in view, will be apt to strain themselves before their limbs have sufficient strength. If slow, they were to be slipped immediately; for, having no hopes of catching their game by speed, they will not be so eager, but may be permitted to follow by foot until the hare is started again, which, if taken, the young hounds should be permitted to tear. When they will not keep the scent, and run straggling about, they should be called back until they are taught to find the hare, lest, being used to hunt without order, they become skirthers, and skirting is a fault which hounds should never be suffered to contract. When they are hungry, the huntsman should feed them himself: they will disregard the person who feeds them when they are not hungry; but will diligently follow him who attends and prepares their food when they are so.

Descending to writers of a date less remote, we find Mr. Blome, after some prefatory remarks not necessary in this place, observes, that the season commences in September, and that an expert huntsman may distinguish the sex, strength, and age of his game by the following signs :—when a hare rises out of her seat, if she erects her ears, and at first runs slowly with her scut cast over her back, she is surely old and crafty. When a hare is hunted to her form along the hard highways, and feeds far away from cover, and that the doublings and crossings are wide and large, it is a buck ; as the does generally keep close to the side of some cover, and when going to feed in the corn fields, seldom cross over the furrows, but follow in the track of them ; when hunted, they turn frequently, use many stratagems, and rarely leave the country round their seats ; while the buck, after two or three turns about his form, runs straight forward four or five miles, and then probably squats in some place where he has before preserved himself. A buck hare may also be known at starting by the whiteness of his hinder parts.

The chase of the hare, continues Mr. B. makes the best diversion of all chases, is procured with less expense as to the hunting establishment, and she shews more cunning and subtlety to avoid the hounds : amongst the many shifts of the hare, the following is remarkable :—a hare that is run in or immediately after rain, will not take to the woods on account of the wet that hangs on the small boughs, but will often squat at the edge of a cover, and as soon as the hounds have overrun the scent, will return to her seat ; to prevent which, unseen, the huntsman should keep at a distance from the wood which she seems to enter, that he may halloo off the hounds, and again lay them upon the scent, before the hare is too long gone.

Mr. B. entertained some strange notions respecting the entering of young hounds. He says, it is not advisable to enter young hounds in the mornings, because of the dew and moisture of the earth ; for then, when wanted to hunt in the heat of the day, especially in warm weather, or when the wind has dried the ground, they will betake themselves to shady places to rest and sleep ; therefore, the best time for entering hounds is in the heat of the day, and about October and November, the weather being then temperate, and young hares that have

not been hunted are then more easily taken for their encouragement. He adds a further caution—never at the entering of young hounds, to help them to kill the hare with greyhounds, which will prevent the hounds from putting their noses to the ground, or trying to hunt for themselves.

Hounds, after two years old, should be hunted three times a week, if they feed well, and may be kept out the greatest part of the day to try their stoutness.

The hare should be sought according to the season of the year :—if it be spring, upon fallows or green corn ; during the autumn, in stubbles and turnips ; in winter, they will seat themselves near houses, in brambles and tufts of thorns.—The beating her from her seat is recommended in preference to trailing her from her feed to her form.

Great exactness was to be observed at the first entering of hounds ; they were not to be repeatedly uncoupled on the same sort of ground, lest by being uncoupled constantly in an open field, they would be at a loss what to do when turned into a cover.

It was a received opinion, that, according to the places where hounds were first entered, they would continue afterwards to shew a preference ; as, for instance, if entered in a champaign country, they would always hunt better there than in covers, marshy or mountainous grounds : it was therefore recommended to accustom them to all kind of countries that they might become perfect in all.

Some of the early sportsmen would not suffer the huntsman to halloo when the hounds were at fault, nor to be assisted in any way ; on the contrary, the dogs were suffered to hunt it out by themselves : which was considered a sure way of ascertaining the goodness of the hounds. There were not wanting others, however, who deemed it right to take all advantages and kill the hare as soon as possible.

An old author observes,—if there be any hound which has found the trail of a hare, where she relieved that night, let the huntsman then forbear being over hasty, but let the hounds make it out of themselves ; and when he perceives that they begin to draw in together, and call on freshly, then let him encourage them, especially that hound which hunts best, frequently calling him by his name.

A hare, he continues, leaves better scent when she goes to relief than when she goes towards her form : for when she

relieves in the field, she couches her body low upon the ground, passing often over one piece of ground to find where lieth the best food, and thus leaveth the better scent, crottying (dunging) also sometimes.

Besides, when she goes to her form, she commonly takes the highways, doubling, crossing, and leaping as lightly as she can ; in which places the hounds can have no scent by reason of the dust, &c. The hares will squat also by the sides of the highways, and therefore the huntsman should well beat the sides of the highways.

Now, having found where a hare hath relieved in some pasture or corn field, then must you consider the season of the year, and what weather it is. For if it be in the spring time or summer, a hare will not then sit in the bushes, because they are frequently offended with pismires, snakes, and adders, but will sit in corn fields and open places.

When a hare is started on foot, then step in where you saw her pass, and halloo in your hounds until they have all undertaken it, and go on with it in full cry : then recheat to them with your horn, following fair and softly at first ; making neither too much haste, nor too much noise with your horn or voice ; for, at the first, hounds are apt to overshoot the chase through too much heat. But having ran the space of an hour, and that you see the hounds are well in with it, sticking well upon it, then you may come in nearer with the hounds, because by that time their heat will be cooled, and they will hunt more slowly. But, above all things, mark the first doubling, which must be your direction for the whole day ; for all the doublings that she shall afterwards make will be like the former ; and according to the policies that you shall see her use, and the place where you hunt, you must make your compasses, great or little, long or short, to help the defaults, always seeking the moistest and most commodious places for the hounds to scent in.

The plan which some of the ancient sportsmen adopted in rewarding the hounds clearly shews the very imperfect notions which they entertained of this part of the business. The hare, when killed, was to be laid on the grass and bayed by the hounds ; it was to be skinned before them, and after the gall and lights were taken away, which were supposed peculiarly liable to make the hounds *sick*, the huntsman, who carried a wallet,

containing bread cut into small pieces, dipped them in the blood, and, with the entrails, gave them to the hounds : the hare was afterwards distributed, and if any young hound was fearful to come amongst the rest, he had the head given him by himself. After which, the hounds had bread given them to prevent *sickness*. It was supposed that the flesh of an old hare was not fit for human food, being hard of digestion, and apt to produce melancholy ; leverets, however, were allowed to be nourishing.

Thus far the notions of old sportsmen, which may be considered as obsolete. We now bring under consideration the ideas of one who published his *ex-cogitations* in 1733 ; and although quaintly written, and displaying much self-conceit in the author, are nevertheless characterised by much more than ordinary discernment and reflection.

The author in question observes, there is something noble and heroic in hunting the wild boar, the tiger, and the lion ; but we inhabit an island where art and activity are more requisite to the huntsman than strength of body, and where safety must compensate for want of glory.

The principal games of Great Britain (says he) are the deer, the fox, the hare, the otter, the badger, and the martin ; though the three last of these would hardly deserve the honour of being hunted, were they not in season in the spring of the year, when the poor hare ought to be in peace to multiply her species, and were not our young gentlemen contented to play at a small game rather than stand idle.

The stag, he admits, is a noble prize ; and as the taking it requires a large pack of dogs, the very best horses, and a great expence, it is calculated for the nobility and men of princely fortunes only. The pursuit after the fox is also violent, and rather fit for those youthful heroes, who glory in breaking the hearts of their horses, and venturing their own necks.

The author in question further observes — Every hare is no sooner started than she seems immediately to form a scheme, and to take into it the gravity of the air, the position of the wind, the difference of the soil, the succour of a flock of sheep, and every other accident or advantage that may be most likely to baffle her adversaries, and favour her escape. Nor is the experienced hound less acute and crafty, to stop at every double in order to apprehend her where she squats ; to try

every bye-path, gate, gutter hole, to round it on the side where she seems to bend; to proportion his speed to every degree of alteration of the scent, or sinking of the foe. He seems also, with no less curiosity, to distinguish the scent he is engaged in from any new offer, as well as to discern and pick it out as often as she repeats the foiled path.

It is very common for a hare to run a mile or two forward, and then, making a small ring, to fly back in the same track, whilst her enemies are puzzling at the head of her works: and I have been several times an eye witness (says he) of her beating about, and thrusting out a fresh hare in her place, and then saving herself by a swift retreat, and two or three large leaps, the better to impose upon the eager dogs. I have also seen an old dog, on the like occasion, standing to his first scent, looking over his shoulder, and, as it were, scolding at his headless juniors for going on so eagerly, or for changing their game.—A hundred more of this sort of observations, you may hear from any old weather-beaten huntsman, over a bottle of *October*.

The author, whose opinions we have latterly been quoting was an enthusiastic admirer of hare hunting, and indeed many of the ancient sportsmen preferred it to any other chase; but they had no idea of that perfection which fox hunting has attained since their time. Their horses were very inferior to those of the present day; and unless the horses, and hounds too, are of the best possible description, fox hunting must be very vexatious and tiresome, and will generally end in disappointment. So the sportsmen of the ancient school no doubt found it; on which account it was not much practised or studied by them; and, in consequence, the accounts which they have left behind them, say but little on the subject, and that little is neither instructive nor satisfactory.

On the subject of hare hunting, Beckford observes, that, though he kept harriers for many years, he never was a hare hunter from inclination. "I followed the diversion (he continues) more for air and exercise than for amusement; and if I could have persuaded myself to ride on the turnpike road to the third mile stone and back again, I should have thought I had no need of a pack of harriers.—Excuse me, brother hare hunters! (he exclaims) I mean not to offend; I speak only of the country where I live. The hare hunting there is so bad, that, did you know it,

your wonder would be how I could have persevered in it so long, not that I should forsake it now. I respect hunting, in whatever shape it appears; it is a manly and a wholesome exercise, and seems by nature designed to be the amusement of a Briton."

Beckford's opinion is, that the hound most likely to shew sport in hare hunting is one bred between the large slow hunting harrier and the little beagle; one is too dull, too heavy, and too slow; the other, too lively, too light, and too fleet. The first have most excellent noses, and will kill their game at last, if the day be long enough. The others, on the contrary, fling and dash, and are all alive; but every cold blast affects them (says he); and if the country is deep and wet, it is not impossible but some of them may be drowned. "My hounds were a cross of both these kinds, in which it was my endeavour to get as much bone and strength in as small a compass as possible. It was a difficult undertaking. I bred many years, and an infinity of hounds, before I could get what I wanted. I at last had the pleasure to see them very handsome, small, yet very bony; they ran remarkably well together; ran fast enough; had all the alacrity you could desire, and would hunt the coldest scent. When they were thus perfect, I did as many others do, I parted with them."

The huntsman to a pack of harriers, Beckford says, should not be young; he should be quiet and patient; for patience indeed he should be a very grizzle; and the more quiet he is the better. He should have infinite perseverance, for a hare should never be given up whilst it is possible to hunt her; she is sure to stop, and therefore may always be recovered.

The whipper-in should be like the second whipper-in to a pack of fox-hounds; merely the stable boy, who is to follow the huntsman; in fact, he should not even stop a hound, or crack a whip, without the huntsman's order. Much noise and rattle are directly contrary to the first principles of hare hunting, which is to be perfectly quiet, and let the hounds alone. There are perhaps few packs of harriers so good as those kept in towns, and which have no professed huntsman to follow them. If they have no one to help them, they have at the same time no one to spoil them, which for hare hunting is very material. Hounds, however, if left entirely to themselves are apt to contract the fault of *running the heel*. Hounds are naturally fond

of scent; if they cannot carry it forwards, they will turn and hunt it back again. In this particular instance, harriers should be mildly checked; for, as it is almost an invariable rule in all hunting to make the head good, the dogs should be encouraged to try forward first; which may be done without taking them off their noses, or without the least prejudice to their hunting. If trying forward should not succeed, they may then be suffered to try backward, which they will be all ready enough to do; as they are sensible how far they brought the scent, and where they left it.

Harriers, like all other hounds, to be good should be kept to their own game. Hounds cannot be perfect, unless used to one scent, and one style of hunting. To run a fox with harriers makes them wild, and teaches them to skirt. The high scent which a fox leaves, the straightness of his running, the eagerness of the pursuit, and the noise which generally accompanies it, all contribute to spoil a harrier.

It is a fault in a pack of harriers to go too fast; for a hare is a little timorous animal that we cannot help feeling some compassion for, at the very time when we are pursuing her destruction: scope should be given for all her little tricks, nor should she be over matched and foully killed. Instinct instructs her to make a good defence, when not unfairly treated; and, as far as her own safety is concerned, she will display more cunning than a fox, and will make many shifts to save her life far beyond all his artifice.

Those who like to rise early will experience much amusement in seeing the hare trailed to her form; and it is of great service to harriers; it also shews their goodness to the huntsman more than any other hunting, as it discovers to him the hounds which have the tenderest noses. "But I confess (says Beckford) I seldom thought it worth while to leave my bed a moment sooner on that account; I always thought hare hunting should be taken as a ride after breakfast, to get us an appetite to our dinner. If you make a serious business of it, I think you spoil it."

When hounds go out late, hare finders become necessary: it is pleasing to know where to go immediately for diversion, and not to beat about for hours before a hare is found. It is more material with regard to the second hare than the first; since, if you are warmed with your gallop, the waiting long in the cold afterwards, is disagreeable, if not dangerous. Yet, it must be admitted, that hounds hunt the game

which they find themselves with more spirit, and the sportsman himself feels a pleasure in expectation which no certainty can give. Further, hare finders make hounds idle, as well as wild. Beckford says, "mine knew the men, as well as I did myself, could see them almost as far, and would run, full cry, to meet them."

Hare finders are of one great service—they prevent hounds from chopping hares, which otherwise they would not fail to do. "I had in my pack, one hound in particular that was famous for it; he would challenge on a trail very late at noon, and had as good a knack of chopping a hare afterwards; he was one that liked to go the shortest way to work, nor did he choose to take more trouble than was necessary."

It is said by those who profess to be deeply skilled in the business, that if you make forms hares will sit in them; and Beckford was informed that this was a common practice of the shepherds on the Downs of Wiltshire: and that by making them on the sides of hills, they could tell at a distance, whether there were hares in them or not. There are many strange tales told on sporting subjects, and these last mentioned are given as the reports of others, and not as matters which have actually fallen under the observation of the writer, or what he implicitly believes.

"The talent of hare finding (says Beckford) is certainly of use, and the money collected for it, when given to shepherds, is money well bestowed by a sportsman, as it tends to the preservation of his game; yet, I think, when it is indiscriminately given, hare finders are often too well paid. I have known them frequently get more than a guinea for a single hare. I myself have paid five shillings in a morning for hares found sitting. To make our companions pay dearly for their diversion, and oftentimes so much more than it is worth; to take from the pockets of men who oftentimes can ill afford it, as much as would pay for a good dinner afterwards, is, in my opinion, a very ungenerous custom; and this consideration induced me to collect but once, with my own hounds, for the hare finders. The money was afterwards divided amongst them; and, if they had less than half-a-crown each, I myself supplied the deficiency.—An old miser, who had paid his shilling, complained bitterly of it afterwards, and said, '*he had been made to pay a shilling for two penny-worth of sport.*'"

When a hare is found the sportsmen cannot be too quiet: the hare is an animal so very timorous, that she is frequently headed back, and the hounds are liable to overrun the scent at every instant. It is advisable, therefore, to keep sufficiently behind them so as to allow them room to turn as soon as they perceive that they have lost the scent; and, if treated in this manner, the dogs will seldom overrun it much. The hounds in fact, through the whole chase, should be left almost entirely to themselves, nor should they be hallooed too much: when the hare doubles, they should hunt through those doubles; nor is a hare hunted fairly, when hunted otherwise. The dogs should follow her every step she takes, as well over greasy fallows, as through large flocks of sheep; nor should they ever be cast, but when nothing can be done without it.

"I know a gentleman (says Beckford) a pleasant sportsman, but a very irregular hare hunter, who does not exactly follow the method here laid down: as his method is very extraordinary, I will re-

late it to you. His hounds are large and fleet; they have at times hunted every thing—red deer, fallow deer, fox and hare; must in their nature have been most excellent; since, notwithstanding the variety of their game, they are still good. When a hare is found sitting, he seldom fails to give his hounds a view; and as they all halloo, and make what noise they can, she is half frightened to death immediately. This done, he sends his whipper-in to ride after her, with particular directions not to let her get out of his sight; and he has found out that this is the only proper use of a whipper-in. If they come to a piece of fallow or a flock of sheep, the hounds are not suffered to hunt any longer, but are hallooed as near to the hare as possible; but by this time the poor devil is near her end, which the next view generally finishes; the strongest hare, in this manner, seldom standing longer than twenty minutes; but my friend says, a hare is good eating, and he therefore thinks he cannot kill too many of them."

When a hare is found, Somerville observes:—

At distance draw thy pack; let all be hush'd,
No clamour loud, no frantic joy, be heard,
Lest the wild hound run gadding o'er the plain
Untractable, nor hear thy chiding voice.
Now gently put her off:—see how direct
To her known meuse she flies! Here, huntsman, bring
(But without hurry) all thy jolly hounds,
And calmly lay them on. How low they stoop,
And seem to plough the ground; then all at once,
With greedy nostrils, snuff the fuming steam
That glads their fluttering hearts. As winds let loose
From the dark caverns of the blustering god,
They burst away, and sweep the dewy lawn.

The natural eagerness of the hounds when the hare is first found, will frequently carry even the best of them wide of the scent, which too much encouragement, or pressing too close upon them, may continue beyond all possibility of recovery; this should be always guarded against. After a little while, they become settled to their scent. They may then be approached nearer; leaving, however, room at all times sufficient for them to turn,

should they overrun the scent. On the high roads and paths, the scent is always doubtful, and little should be said to the hounds; but when a hit is made on either side, hallooing will do harm.

A hare generally describes a circle as she runs; large or less, according to her strength, and the openness of the country. Where there is much cover, the circle is generally small, and the task of the hounds thereby rendered extremely difficult.

"Huntsman! her gait observe: if in wide rings
She wheels her mazy way, in the same round
Persisting still, she'll foil the beaten track.
But if she fly, and, with the fav'ring wind
Urge her bold course, less intricate thy task:
Push on thy pack."

SOMERVILLE.

Besides running the foil, hares frequently make doubles, which is going forward to tread the same steps back again, on purpose to confuse the pursuers; and the same manner in which they make the first double, they generally continue, whether long or short. This information therefore, if properly attended to by the huntsman, may also be of use to him in his casts.

“ ————— Let cavillers deny
That brutes have reason; sure 'tis something more :
'Tis Heaven directs, and stratagems inspire,
Beyond the short extent of human thought.”

SOMERVILE.

After running a path a considerable way, a hare will frequently make a double, and there stop till the hounds have passed her: she will then steal away as secretly as she can, and return the same way she came. This is the greatest of all trials for the hounds. It is so hot a foil, that, in the best packs, there are not many hounds that can hunt it; those hounds must be followed which can, and she may be perhaps recovered. It may not be amiss here to remark, that many of the modern harriers are bred *too high*; or, in other words, for the sake of increasing the speed, they are bred tall and light; and, while all possible pains have been bestowed to accomplish this object, the most essential qualification in a hound was never once considered—we mean the excellence of the olfactory organs. The modern fashionable harrier is a sort of small greyhound; and, like the dog last mentioned, has a narrow contracted head; such harriers are considered handsome by modern taste, though we will venture to assert, without the fear of contradiction, that no narrow headed dog can possibly possess olfactory organs in a superior degree, or manifest what some sportsmen call a tender nose.—(See the article HOUND, and also the article SCENT). Lord Molyneux, a year or two back, procured a pack of beagles, with which he *attempted*

When a hare makes a double on a high road or a path, and then leaves it with a spring, it is frequently the occasion of a long fault. The spring which a hare will make, on these occasions, is hardly to be credited, any more than is her ingenuity in making it—both are wonderful!

to hunt hares—we say, *attempted*, because these little dogs could seldom make any thing of it; unless, indeed, they had every possible advantage of atmosphere and country. His Lordship very soon grew tired of them and gave them up. They were called pretty little dogs, and so they appeared to superficial observation; but, after having followed the chase for more than thirty years, we must honestly confess, that no hound appears handsome in our eyes unless his qualifications, displayed in the field, are such as to entitle him to our regard. When a hare runs the foil, it is a mere accident, if she be hit off again by many of what are called the high-bred harriers. Dogs of this description will run fast when the game is pointed out to them, and while they can see it; but they cannot hunt a cool scent; and even under any circumstances, it is a thousand to one if the first fallow does not stop them. So conscious indeed are such dogs of their own incapacity, that on coming to a fallow field, or any other place of difficulty, they throw up their heads, and stare about, waiting for a distant halloo, or something of the sort, by which to direct their next movements.

But to return.—When the scent lies bad in cover, the hare will sometimes hunt the hounds.

“ ————— The covert's utmost bound
Slily she skirts; behind them cautious creeps,
And in that very track, so lately stain'd
By all the steaming crowd, seems to pursue
The foe she flies ————— ”

SOMERVILE.

When harriers are at a check, the huntsman should stand as still as possible: the hounds lean naturally towards the scent; and if not a word be spoken to them, it

is ten to one but they will soon recover it. “ If (says Beckford) you speak to a hound at such a time, calling him by his name, which is too much the practice, he

seldom fails to look up in your face, as much as to say, *what the deuce do you want?*—when he stoops to the scent again, is it not probable he means to say, *you fool you, let me alone?*”

When the dogs are at fault, not a word should be said by any of the sportsmen, nor should any one stir. “A neighbour of mine (says Beckford) was so truly a hare hunter in this respect that he would not suffer any person to speak a word, when his hounds were at fault:—a gentleman happening to cough, he rode up to him immediately and said, ‘*I wish, Sir, with all my heart, your cough was better.*’”

On a good day, good hounds seldom give up the scent a head; if they do, there is generally an obvious reason for it; this observation a huntsman should always make—it will direct his cast. If he knows his business, he will be attentive as he goes, not only to his hounds, nicely observing which have the lead and the scent they carry, but also to the various circumstances that are continually happening from change of weather and difference of ground. He will also be mindful of the distance the hare keeps before the hounds, and of her former doubles, and he will remark what point she makes to. All these observations will be of use should a long fault make his assistance necessary; if the hare has headed back, he will carefully observe whether she met any thing in her course to turn her, or turned of her own accord. When he casts his hounds, he should begin by making a small circle; if that will not do, he should try a larger; afterwards he may be at liberty to make any cast he thinks proper. As a hare generally revisits her old haunts, and returns to the place where she was first

found, if the scent is quite gone, and the hounds can no longer hunt, *that* is as likely a cast as any to recover her. But the huntsman should remember this in all his casts, that the hounds are not to follow the heels of his horse, nor are they to carry their heads high and noses in the air. At these times they must try for the scent, or they will never find it, and he is either to make his cast slow or quick, as he perceives his hounds try, and as the scent is either good or bad.

A huntsman should also be as careful as possible to prevent his hounds chopping hares. Huntsmen like to get blood at any rate; and when once hounds have been used to it, they are always on the look out for opportunities. Beckford observes, “I remember in a furzy country, that my hounds chopped three hares in one morning; for it is the nature of these animals either to leap up before the hounds come near them, and *steal away*, as it is called; or else to lie close till the dogs put their very noses upon them. Hedges also are very dangerous; if the huntsman beats the hedge himself, which is the usual practise, the hounds are always upon the watch, and a hare must have good luck to escape them all. The best way to prevent it is to have the hedges well beaten at some distance before the hounds.”

Hares seldom run so well as when they do not know where they are.—They run well in a fog, and generally take a good country. If they set off down the wind, they seldom return—the hounds then cannot be pushed on too much. When the game is sinking, you will perceive the old hounds get forward: they, then, will run at head. Thus sings Somerville:—

“Happy the man, who, with unrivalled speed,
Can pass his fellows, and with pleasure view
The struggling pack; how in the rapid course
Alternate they preside, and jostling push
To guide the dubious scent; how giddy youth
Oft babbling errs, by wiser age reproved:
How, niggard of his strength, the wise old hound
Hangs in the rear, till some important point
Rouse all his diligence, or till the chase
Sinking he finds; then to the head he springs,
With thirst of glory fir’d, and wins the prize.”

Babblers should never be kept; for, although the rest of the pack soon find them out, and do not pay attention to them, yet it is unpleasant to hear their noise; nor are they fit companions for the rest.

No hound should be kept that runs false; the loss of one hare is more than such a hound is worth.

Hounds should sometimes have a hare given them, particularly young hounds; though in respect to blood being indis-

pensible to hounds, we refer the reader to what has been said under the article *FOX HUNTING*.

Beckford very pointedly says, "It is too much the custom first to ride over hounds, and then to cry *'ware horse*. I have known many a good hound spoiled by it. In open ground, speak to them first; you may afterwards ride over them, if you please; but in roads and paths, they frequently cannot get out of your way; it surely then is your business to stop your horse, or break the way for them, and the not doing it, give me leave to say, is absurd and cruel; nor can that man be called a good sportsman who thus wantonly destroys his own sport. Indeed, good sportsmen seldom ride on the line of the tail hounds."

Warren hares, which are caught, and turned down before hounds seldom shew much sport. When they are turned down, they should not have much time, but the hounds should be laid on as soon as they are out of view; or they will very likely stop, which is often fatal. Views are at all times to be avoided, but particularly with trap hares; for as these know not where they are, hounds have too great an advantage over them. It is best to turn them down the wind; they hear the

hounds better, and seldom turn again. These hares run straight and make no doubles; leave a strong scent, and have other objections in common with animals turned out before hounds: they will shew but little hunting. The hounds should be hunted much in the same manner as a pack of fox-hounds, as a trap hare runs much in the same manner as a fox, and will even top the hedges.

Beckford finishes his remarks on hare hunting by observing, "It is very good diversion in a good country; you are always certain of sport; and if you really love to see your hounds hunt, the hare, when properly hunted, will shew you more of it than any other animal,"

Hares should never be hunted beyond the early part of March; and indeed, if the season be forward, they should not be hunted in March at all."

Of all chases, none affords so much pleasure to the pedestrian sportsmen as the pursuit of the hare; as these animals run in circles, and generally return to their old ground, by which means they are enabled to keep, for the most part, in sight of the hounds: it is in fact charming diversion, and admirably described by the poet of the chase:

"Hark! from yon covert, where those towering oaks
Above the humble copse aspiring rise,
What glorious triumphs burst in every gale
Upon our ravish'd ears! the hunter's shout,
The clanging horns swell their sweet-winding notes,
The pack, wide opening, load the trembling air
With various melody: from tree to tree
The propagated cry redoubling bounds,
And winged zephyrs waft the floating joy
Thro' all the regions near: afflictive birch
No more the school boy dreads; his prison broke,
Scampering he flies, nor heeds his master's call;
The weary traveller forgets his road,
And climbs the adjacent hill; the ploughman leaves
Th' unfinished furrow; nor his bleating flocks
Are now the shepherd's joy! men, boys, and girls,
Desert th' unpeopled village; and wild crowds
Spread o'er the plain, by the sweet phrenzy seiz'd."

HARE NETS. These are of two sorts. The first has already been described under the head of *GATE NET*; the other is called a *purse net*, and is made something in the form of a cabbage net, but larger. The *purse net* may be very successfully used instead of the wire snare, with this difference, however, that the hares are caught alive, and they are even more certain than the wire snare, and more easily

set at the meuses or runs. In the day time, the poacher finds the *purse net* a very convenient and a very ready instrument for his nefarious purpose. He will place them in a very few minutes round a plantation where hares perhaps are numerous, and then by going in and disturbing the cover, even without a dog, he will completely accomplish his purpose. The hares take the alarm, and in threading

the meuses, throw themselves into the nets, where they become entangled.

HARE WARREN. An inclosure for the purpose of keeping hares; and now very little used.

HARE PIPES were instruments constructed so as to imitate the whining whimper of a hare. They were formerly used by poachers; but have given place to an improved system of depredation.

HARK FORWARD! is a sporting exclamation, and affords to distant sportsmen information that the hounds are ahead, and are right.

HARNES. All the accoutrements of an armed horseman; also, all manner of trappings, furniture, collars, &c. fitted to horses or other beasts for drawing.

HARRIERS. Hounds used in the pursuit of the hare.—See the article **HOUND**.

HART. The male of the red deer, generally called the stag, to which article we refer the reader. Formerly the word hart was used in all Forest Laws and Records.

HART ROYAL. In early times, when the king lost a stag, open proclamation was made in all towns and villages near where the deer was supposed to remain, that no person should kill, hunt, or chase him, that he might safely return to the forest again, and the foresters were ordered to harbour the said hart, and by degrees to bring him back to the forest, and that deer was ever after called a *hart royal proclaimed*.

White Hart Silver, as it is called, was a heavy fine laid on some lands, near the Forest of Blackmore, Dorsetshire; the proprietor, T. de la Lynde, a Dorsetshire Baron, in the time of Henry III. having destroyed a white hart which had afforded that prince much amusement (probably had been proclaimed); an acknowledgment of which has been paid into the exchequer so late as the reign of Elizabeth.

HAUNCH AND HIP of a horse, have been hitherto used in a similar sense: nice observers might say one begins where the other ends, or that one immediately succeeds the other. The haunch is that part of the hind quarter extending from the point of the hip-bone, down the thigh to the hock; but as it is a part well known, and but little subject to partial disease or accident, it lays claim to no particular description. The term of "putting a horse upon his haunches," implies the making him constantly fix the principal weight of the frame upon his hind quar-

ters, by which practise he bears less upon the bit, and becomes habitually light in hand. Horses hard in mouth, and heavy in hand, frequently undergo the ceremony of being put upon their haunches in the trammels of a riding school, where, by too severe exertions, sudden twists and strains are sustained in the hocks, which terminate in curbs and spavins.

HAW. The *membrana nictitans* of an animal. Its appearance over the eye of a horse, when affected with inflammation, has led to an erroneous opinion, that it is a diseased production, and should be extirpated. Accordingly, we find directions for that purpose in many of the books of farriery. Thus Gibson says, "Haws grow sometimes in eyes that are not naturally bad, after surfeits and cold, but moon-blind horses indeed are seldom without them; and wherever this symptom appears, that the haw grows large and spongy, and derive a drain of humours upon the eye, the operation becomes necessary, and is performed by taking hold of the membrane with a small hook, and cutting off so much of the caruncle as looks moist and spongy, with part of the membrane and gristle that make a pressure on the eye. When this operation is well performed, it does great service, and often recovers horses that are not subject to cataracts. The operation is easy, and what almost every farrier pretends to; but the farriers are apt to cut off too much of this substance, and by that means weaken the eye;" and indeed, when the operation is skilfully performed, the animal generally becomes blind.

HAWKS AND HAWKING. See **FALCONRY**.

HAY is that general and well known article, grass, cut in its most luxuriant and nutritious state, during the months of June and July; when the succulent parts tending most to putrefaction, being extracted by the powerful rays of the sun, it acquires (if the season should prove dry and favourable for the operation) a degree of fragrantcy nearly equal to a collection of aromatic herbs. Hay, in this state, is the most attracting aliment to horses of every description, and so truly grateful to the appetite, that it is often accepted when corn is refused.

HAYS. Large nets for taking rabbits, in or near a warren.

HAYWARD OR HAWARD. A keeper of the common herd of cattle of the town, who is to look that they neither break nor crop the hedges of inclosed lands, and is

sworn in the lord's court for the performance of his office.

HAZARD is a game of chance : it is played with a box and pair of dice, and is of considerable antiquity.

HEAD OF A HORSE. See **CONFORMATION**.

HEADS OF DEER. All those in deer that have double burs on the antlers; royals and croches turned downwards, are properly termed heads.

Heads of so many croches : all heads of deer, which do not bear above three or four, the croches being placed aloft, all of one height, in form of a cluster of nuts, generally go by this name.

HEAD-STALL is the part of a cave-son, bridle, halter, &c. which passes round, and on each side the head of the horse, and to which the reins of either are affixed.

HEARSE. A hind in the second year of her age.

HEAT. A term used by gentlemen of the turf, to denote a certain distance which a horse runs on the course. A race may consist of one or more heats.

HEATH FOWL. See the article **GROUSE**.

HEAVIER. A stag deprived of his testicles by castration is then called a heavier, which operation was occasionally performed that a supply might not be wanting for the chase during the rutting season. At this period the stag is perpetually ranging from one hind to another, for three weeks or longer; without allowing himself food, sleep, or rest. Towards the termination, he becomes lean and languid, and withdraws himself to seek food and repose. At this period, he is so ill adapted for sport with the hounds, that the operation of castrating was adopted as an alternative to the temporary suspension of the royal chase.

It is said that if a stag undergoes this operation when his horns are shed, they never grow again; on the contrary, if it is performed while the horns are in perfection, they will never exfoliate; and it is remarkable, that being deprived of only *one* testicle, the horn will not regenerate on that side, but will continue to grow, and to be annually shed, on the other side, where the testicle has not been taken away.

HEAVY IN HAND. A horse is said to be heavy in hand, when, from want of spirit, he goes sluggishly on, bearing his whole weight upon the bit; as if the hand of the rider alone prevented his pitching

upon his head. Horses of this description should be frequently made to feel the curb and the spur.

HEEL OF A HORSE. The lowest hind-part of the foot, comprehended between the quarters, and opposite to the toe.

HEELER is the person who affixes the spur to the heel of a game cock, when taken from the pen previous to his being carried to the cock-pit to fight his battle. A hard-hitting cock, who is perpetually fighting with effect, is also called a heeler.

HEINUSE. A roebuck of the fourth year.

HELPS OR AIDS are terms appertaining solely to the manege and riding-school. Professors technically describe seven helps necessary to complete the lesson given to a horse; as the voice, whip, bit, calves of the legs, the stirrups, the spur, and the ground.

HEROD, KING. A bay horse, foaled in 1758, bred by his Royal Highness William, Duke of Cumberland, and sold to Sir John Moore, Bart.

King Herod was got by Tartar, out of Cypron.

At Newmarket in October, 1763, King Herod beat the Duke of Ancaster's Roman, by Blank, 8st. 7lb. B. C. 500gs. At Newmarket, in April, 1764, he won a sweepstakes of 300gs. each, h. ft. (9 subscribers) 10st. B. C. beating Sir John Moore's (afterwards Mr. Wildman's) Tartar, by Tartar, out of Miss Meredith:—At starting 2 to 1 on King Herod. At Ascot-Heath in June, King Herod 8st. 13lb. beat Lord Rockingham's Tom Tinker, by Sampson, 8st. 7lb. four miles, 1000gs.—4 to 1 on King Herod. At Newmarket in October, King Herod, 8st. 11lb. beat the Duke of Grafton's Antinous, 8st. 8lb. B. C. 500gs.—6 to 4 on Antinous. At Newmarket in May, 1765, King Herod, 9st. beat the Duke of Grafton's Antinous, 8st. 5lb. B. C. 1000gs.—7 to 5 on Antinous. In October, at 9st. he was beat by Sir James Lowther's Ascham, 6 years old, 8st. B. C. 1000gs.—3 to 1 on King Herod. At the decease of his Royal Highness, King Herod was purchased by Sir John Moore; and in April, 1766, at 9st. he was beat by Lord Bolingbroke's Turf, 5 years old, 8st. 8lb. B. C. 1000gs.—At starting, 7 to 4 on King Herod. At York, in August, he started for the subscription-purse against Bay Malton, Jerkin, Royal George, Flylax, and Beaufremont; but a blood-vessel burst in King Herod's head, when running the last mile, which caused him to be taken dangerously

ill, and prevented his coming in a better place than last. At Newmarket, in April, 1767, King Herod was second to Bay Malton, beating Turf and Ascham. And in May, at 5st. 7lb. he beat Mr. Shafto's Ascham, 6st. B. C. 1000gs.—6 to 4 on Ascham. The above were the only times of King Herod's running.

King Herod was a remarkable fine horse, with uncommon power, and allowed to be one of the best bred horses this kingdom ever produced, and as a stallion inferior to none, being sire of a larger number of racers, stallions, and broodmares than any other horse either before or since his time.

HERON, THE, is about three feet three inches in length. The bill is six inches long, and is of a dusky colour. The feathers of the head are long, and form an elegant crest. The neck is white; the fore part marked with a double row of black spots. The general colour of the plumage is a blue grey; with the bastard wing, and greater quills, black. The middle of the back is almost bare, and covered by the loose feathers of the scapulars; the feathers of the neck also hang loose over the breast. On each side, under the wing, they are black. The legs are of a dirty green, and the inner edge of the middle claw is serrated.

The female has no crest, and the feathers on the breast are short.

Of all the birds that are known, this is one of the most formidable enemies to the scaly tribe. There is, in fresh waters, scarcely a fish, however large, that the heron will not strike at and wound, though unable to carry it off: but the smaller fry are his chief subsistence; these, pursued by their larger fellows of the deep, are obliged to take refuge in shallow waters, where they find the heron a still more formidable enemy. His method is to wade as far as he can go into the water, and there patiently await the approach of his prey; into which, when it comes within his sight, he darts his bill with inevitable aim. Willoughby says he has seen a heron that had no less than seventeen carp in his belly at once; these he would digest in six or seven hours, and then go to fishing again. "I have seen a carp (he continues) taken out of a heron's belly, nine inches and a half long. Some gentlemen who kept tame herons, to try what quantity one of them would eat in a day, have put several smaller roach and dace in a tub; and they have found him eat fifty in a day, one day with another. In this manner a single heron will destroy seventeen hundred store carp in a single year."

The heron, though he usually takes his prey by wading in the water, frequently also catches it while on the wing: but this is only in shallow waters, where he is able to dart with more certainty than in the deeps; for in this case, though the fish does, at the first sight of its enemy, descend, yet the heron, with his long bill and legs, instantly pins it to the bottom, and thus seizes it securely. In this manner, after having been seen with its long neck for above a minute under the water, he will rise upon the wing with a trout or an eel struggling in his bill. The greedy bird, however, flies to the shore, scarcely gives it time to expire, but swallows it whole, and then returns again to fishing.

Heron Hawking was formerly a diversion in this kingdom; and a penalty of twenty shillings was incurred by any person taking the



THE HUNT OF THE STAG.

eggs of this bird. Its flesh was also in former times much esteemed, being valued at an equal rate with that of the peacock.

In breeding-time, the herons unite together in large societies, and build in the highest trees. Sometimes so many as eighty have been seen in one tree. The nest is made of sticks, and lined with a few rushes and wool, or feathers. The eggs are four or five in number, and of a pale-green colour, marked with black spots.

If taken young, these birds may be tamed; but when the old birds are captured, they soon pine away, refusing every kind of nourishment.

The different parts of the structure of a heron, are admirably adapted to its mode of life. It has long legs for the purpose of wading: a long neck, answerable to these, to reach its prey in the water; and a wide throat to swallow it. Its toes are long, and armed with strong hooked talons; one of which is serrated on the edge, the better to retain the fish. The bill is long and sharp: having serratures towards the point, which stands backwards; these, after the prey is struck, act like the barbs of a fish-hook, in detaining it till the bird has time to seize it with the claws. Its broad, large, concave, and apparently heavy wings for so small a body, are of great use in enabling it to carry its load to the nest, which is sometimes at a great distance. Dr. Derham tells us, that he has seen lying scattered under the trees of a large heronry, fishes several inches in length, which must have been conveyed by the birds from the distance of several miles: and D'Acre Barret, Esq. the owner of this heronry, saw a large eel that had been conveyed thither by one of them, notwithstanding the inconvenience that it must have experienced from the fish writhing and twisting about.

The body of the heron is very small, and always lean; and the skin is said to be scarcely thicker than what is called goldbeater's skin. It is very probable that this bird is capable of long abstinence; as its usual food cannot be had at all times.

HIDE-BOUND. A horse is said to be hide-bound when his skin sticks so close to his ribs that it seems immovable; but this is not to be accounted an original disease, but only a symptom, which may either be caused by want of sufficient food, or from harassing horses beyond their strength, without allowing them sufficient time for rest and necessary refreshment. Sometimes horses grow hide-bound very suddenly, from fevers and convulsive disorders; and, if that symptom is not suddenly removed, the disorders that occasion it generally prove mortal; but nothing is more common than to see surfeited horses also hide-bound; and therefore, in the cure of all hide-bound horses, regard must be had to the original cause from whence it proceeds.

The diet of hide-bound horses should be cool and opening, as scalded bran or

barley; an ounce of fenugreek seeds should be given in his feeds for a month, or longer. As this often proceeds from worms, it may be necessary to give the medicines common in those cases.

HIGHFLYER. A bay horse, foaled in 1774, bred by Sir Thomas Charles Bunbury, Bart. sold to Lord Viscount Bolingbroke, and afterwards to Mr. Richard Tattersall.

Highflyer was got by King Herod, out of Rachel, the dam of Marc Antony, &c.

At Newmarket second October meeting, 1777, Highflyer won a sweepstakes of 100gs. each, p. p. (9 subscribers) colts, 8st. fillies, 7st. 11lb. Ditch-in, beating Lord Grosvenor's Justice, Mr. Douglas's Bourdeaux, Sir C. Bunbury's Sweetmarjoram, and Gen. Parker's Lyra:—6 to 4 against Bordeaux, 2 to 1 against Justice, and 4 to 1 against Highflyer, who was

much out of condition. This was his first engagement.

At Newmarket second spring meeting, 1778, Highflyer won a sweepstakes of 100gs. each, p. p. (26 subscribers) colts, 8st. fillies 7st. 11lb. B. C. beating Lord Clermont's Il'mio, Mr. O'Kelly's Thunderbolt, Mr. O'Kelly's Jupiter, Mr. Sparhawk's Chesfield, Lord March's Fulminé; Lord Grosvenor's ches. colt, by Chymist, out of Barbary's dam; Duke of Bolton's Hanghim, Mr. Hervey's Receiver, and Lord Grosvenor's Justice who broke down:—6 to 4 on Highflyer. In the July meeting, he won the Grosvenor stakes of 25gs. each, (24 subscribers) colts, 8st. 7lb. fillies, 8st. 4lb. B. C. beating the Duke of Grafton's Stormer, Mr. Pigot's Satellite, and Lord Claremont's Dragon:—4 to 1 on Highflyer. On Monday, in the first October meeting, he won the renewed 1400gs. a subscription of 200gs. each, h. ft. (10 subscribers;) colts, 8st. 10lb. fillies, 8st. 7lb. B. C. beating Lord Clermont's Il'mio, Mr. Vernon's Firm, and Mr. O'Kelly's Jupiter:—9 to 1 on Highflyer. On Thursday, at 7st. 4lb. he won the weights and scales purse of 100gs. free for any horse, &c. B. C. beating Mr. Harvey's Pearl, 5 years old, 8st. 5lb; Sir J. Moore's Vestal, 4 years old, 7st. 4lb.; and Sir C. Davers's Tremamondo, 5 years old, 8st. 5lb.:—very high odds on Highflyer. In the second October meeting, he received forfeit in a post stakes of 200gs. each, h. ft. (5 subscribers) colts, 8st. 7lb. fillies, 8st. 4lb. B. C. amongst those named, were Jupiter, Thunderbolt, Flash, Dragon, Cupid, and Marphisa. In the Houghton meeting, at 8st. he beat Lord Clermont's Dictator, 5 years old, 8st. 7lb. B. C. 500gs.:—2 to 1 on Highflyer.

At Newmarket first spring meeting, 1779, Highflyer, 8st. 3lb. won a sweepstakes of 300gs. each, h. ft. B. C. beating Mr. Stapleton's Magog, 8st. 7lb.—Lord Clermont's Dictator, 8st. 8lb. paid:—4 to 1 on Highflyer. In the second spring meeting, he won a sweepstakes of 200gs. each, h. ft. 8st 7lb. each, B. C. beating Lord Ossory's Dorimant, aged; and Lord Clermont's Dictator, 6 years old:—Shark, aged, paid:—4 to 1 on Highflyer. He was sold to Mr. Tattersall; and at Nottingham, August 4, he walked over for a subscription of 10gs. each, (21 subscribers) with 70gs. added by the Grand Stand, for all ages, twice round the course. On Wednesday, in the York August meeting, he walked over for the subscription purse of 295l. for five-year olds, 9st. four miles.

And the next day he won the subscription purse of 295l. for six-year olds, 8st. 7lb. and aged, 9st. four miles, beating Sir J. Pennymann's Venetian, aged:—20 to 1 on Highflyer. And at Lichfield, September 14, he won the King's purse of 100gs. for five-year olds, 8st. 7lb. three-mile heats, beating Lord Grosvenor's Crosspatch, and Mr. Smallman's Chesfield, who was third and drawn:—10 to 1 on Highflyer, who was lame, and out of condition, notwithstanding he won easy. This was the last time of his running, and the above were his only engagements: therefore, he was never beat, nor ever paid a forfeit, though it has been asserted, to the contrary: he was undoubtedly the best horse of his time in England. The sums he won and received amount to 9336 pounds, 10 shillings, although he never started after five years old.

Highflyer then became a stallion at Ely, (afterwards called Highflyer Hall) Cambridgeshire, where he covered mares in 1780, 1781, 1782, 1783, 1784, 1785, 1786, and 1787, at 15gs. and 10s 6d.; in 1788, at 15gs. and one guinea; in 1789, at 25gs. and one guinea; in 1790 and 1791, at 30gs. and one guinea; in 1792, at 50gs. and one guinea; and 1793, at 30gs. and one guinea. He was a very valuable stallion, and sire of an uncommon number of capital racers, stallions, and brood-mares, several of whose pedigrees, performances, and produce will be given in the course of this volume. He was also a most sure foal-getter, and got considerably more colts than fillies. He got only one or two 'chestnuts, one of which was Mr. Montolieu's Little Luna.

HIND. The stag's female.

HIP-SHOT. The defect so termed is an injury frequently sustained in the hip joint, but not always with the same degree of severity. It is a ligamentary twist, by which the junction of the bones is materially affected, but not amounting to absolute dislocation; although it may proceed from a variety of causes, in sudden shocks from the different prominences of, or cavities in, an uneven and irregular pavement; blows, strains, or wrenches, as well as by sliding, or falling; yet there is little doubt but it occurs much oftener from carelessness, inattention, and brutality, either by a violent blow from the post of the stable door, in being hastily led in or out, than by any other means whatever. A cure is seldom effected; for as the injury is not only deeply, but critically, seated, so if the horse, after any

medical means have been used, is turned out to obtain strength, a repetition of work generally produces a relapse of the injury.

HOCK OR HOUGH. See **HAM**.

HOG-STEER. A wild boar three years old.

HOLD HARD! A well known term used in the chase; and applied to those who ride too forward, or press on too much.—It may perhaps be regarded as the opposite of *Hark forward!*

HOOF. The hoof of a horse is that hard and horny substance at the lower extremity of the legs, coming into contact with the ground, and upon which are placed shoes, made of iron, for the preservation of the feet.

HOOF-BOUND. We say a horse is hoof-bound when the hoof is so tight round the instep that it turns the foot somewhat into the shape of a bell. This may be occasioned by an excessive hardness and thickness of the crust; but it is more frequently caused by bad shoeing, especially in the attempts of farriers to widen the heel. Sometimes cutting the toes down too much will give that shape to the foot, and cause a horse to go lame; but this is easily discovered both by the eye and by a horse setting his foot down tenderly. Gibson says, he has known horses that have had so much of the toes cut down, that they could not go till all the nails were pulled out before. According to that writer, the only way to relieve the binding of the hoof is “to draw the foot down from the coronet almost to the toe with a drawing-knife, making seven or eight lines or razes through the hoof, almost to the quick; afterwards keep it charged with pitch or rosin, till the lines are worn out in shoeing, which will require several months.” Most people, for this reason, turn such horses to grass till the feet grow down.

HOOF-CASTING. A complete separation of the horse's hoof. This may be occasioned by whatever accident may bring an imposthumation in the foot, by which the whole hoof becomes loosened, and falls off from the bone. If the coffin-bone remains uninjured, a new hoof may be procured by the following method: apply to the part any mild ointment or dressing spread upon tow; then make a boot of leather, with a strong sole, to be laced fast about the pastern, bolstering and stopping the foot with soft flax, that the tread may be easy; renewing the dressing every day until the new hoof grow. Some dress the sore with the fine

powder of myrrh, in order to prevent a fungus; sometimes burnt alum or precipitate is added to it, and the luxuriant flesh daily washed with lime-water. The old hoof should by no means be pulled off, unless circumstances happen that require its removal; for it serves as a defence to the new one, and makes it grow more smooth and even; and, indeed, nature will effect this at her own proper time.

HORSE. It is not easy to say from what country the horse came originally. It should seem that the colder climates do not agree with his constitution; for although he is found almost in them all, yet his form is altered there, and he is found at once diminutive and ill-shaped. We have the testimony of the ancients, that there were wild horses once in Europe: at present, however, they are totally brought under subjection; and even those which are found in America are of a Spanish breed, which, being sent thither on its first discovery, have since become wild, and have spread all over the south of that vast continent, almost to the Straits of Magellan. These, in general, are a small breed, of about fourteen hands high. They have thick jaws and clumsy joints; their ears and neck, also, are long; they are easily tamed; for the horse by nature is a gentle complying creature, and resists rather from fear than obstinacy.

These American horses, however, cannot properly be ranked among the wild races, since they were originally bred from such as were tame. It is not in the new, but the old world that we are to look for this animal, in a true state of nature: in the extensive deserts of Africa, in Arabia, and those wide spread countries that separate Tartary from the more southern nations. Vast droves of these animals are seen wild among the Tartars; they are of small breed, extremely swift, and very readily evade their pursuers. As they go together, they will not admit any strange animals among them, though even of their own kind. Whenever they find a tame horse attempting to associate with them, they instantly gather round him, and soon oblige him to seek safety by flight. There are vast numbers also of wild horses to the north of China, but they are of a weak, timid breed; small of stature, and useless in war.

But of all countries in the world, Arabia produces the most beautiful breed, the most generous, swift, and persevering.

They are found, though not in great

numbers, in the deserts of that country; and the natives use every stratagem to take them. Although they are active and beautiful, yet they are not so large as those that are bred up tame; they are of a brown colour, their mane and tail very short, and the hair black and tufted.

The value of Arabian horses, over all the world, has, in a great measure, thinned the deserts of the wild breed; and there are few, if any, to be found in those countries except such as are tame. The Arabians, as we are told by historians, first began the management of horses in the time of Sheque Ismael. Before that, they wandered wild along the face of the country, neglected and useless; but the natives then first began to tame their fierceness, and to improve their beauty; so that at present they possess a race of the most beautiful horses in the world, with which they drive a trade, and furnish the stables of princes at immense prices.

There is scarce an Arabian, how poor soever, but is provided with his horse. They, in general, make use of mares in their ordinary excursions; they are less vicious, of a gentle nature, and are not so apt to neigh. They are more harmless also among themselves, not so apt to kick or hurt each other, but remain whole days together without the least mischief. The Turks, on the contrary, are not fond of mares; and the Arabians sell them such horses as they do not choose to keep for stallions at home. They preserve the pedigree of their horses with great care, and for several ages back. They know their alliances and all their genealogy; they distinguish the races by different names, and divide them into three classes. The first is that of the nobles, the ancient breed, and unadulterated on either side; the second is that of the horses of the ancient race, but adulterated; and the third is that of the common and inferior kind: the last they sell at a low price; but those of the first class, and even of the second, amongst which are found horses of equal value to the former, are sold extremely dear. They know, by long experience, the race of a horse by his appearance; they can tell the name, the surname, the colour, and the marks properly belonging to each. When they are not possessed of stallions of the noble race themselves, for their mares, they borrow from their neighbours, paying a proper price, as with us, and receive a written attestation of the whole. In this attestation is con-

tained the name of the horse and the mare, and their respective genealogies. When the mare has produced her foal, new witnesses are called, and a new attestation signed, in which are described the marks of the foal, and the day noted when it was brought forth. These attestations increase the value of the horse; and they are given to the person who buys him. The most ordinary mare of this race sells for five hundred crowns; there are many that sell for a thousand; and some of the very finest kinds for fourteen or fifteen hundred pounds. As the Arabians have no other house but a tent to live in, this also serves them for a stable, so that the mare, the foal, the husband, the wife, and the children, lie altogether indiscriminately; the little children are often seen upon the body, or the neck, of the mare, while these continue inoffensive and harmless, permitting them thus to play with and caress them without any injury. The Arabians never beat their horses: they treat them gently; they speak to them and seem to hold a discourse; they use them as friends; they never attempt to increase their speed by the whip, nor spur them but in cases of necessity. The Arabian horses are small, easy in their motions, and rather inclined to leanness than fat. They are regularly dressed every morning and evening, and with such care that the smallest roughness is not left upon their skins. They wash the legs, the mane, and the tail, which they never cut; and which they seldom comb, lest they should thin the hair. They give them nothing to eat during the day; they only give them to drink once or twice; and at sun-set they hang a bag to their heads, in which there is about half a bushel of clean barley. They continue eating the whole night, and the bag is again taken away the next morning. They are turned out to pasture in the beginning of March, when the grass is pretty high, and at which time the mares are given to the stallion. When the spring is past, they take them again from the pasture, and they get neither grass nor hay during the rest of the year; barley is their only food, except now and then a little straw. The mane of the foal is always clipped when about a year or eighteen months old, in order to make it stronger and thicker. They begin to break them at two years old, or two years and a half at farthest; they never saddle or bridle them till that age; and then they are always kept ready saddled at the door of the tent

from morning till sun-set, in order to be prepared against any surprise.

The whole stock of a poor Arabian of the desert consisted of a beautiful mare; this the French Consul at Said offered to purchase, with an intention to send her to Louis the fourteenth. The Arab, pressed by want, hesitated a long time, but at length consented, on condition of receiving a very considerable sum of money, which he named. The Consul wrote to France for permission to close the bargain, and having obtained it, sent immediately to the Arab the information.

The man, so poor as to possess only a miserable rag, a covering for his body, arrived with his magnificent courser. He dismounted, and looking first at the gold, and then steadfastly at his mare, heaved a deep sigh:—"To whom is it (he exclaimed) that I am going to yield thee up? To Europeans! who will tie thee close, who will beat thee, who will render thee miserable! Return with me, my beauty, my jewel! and rejoice the hearts of my children!" As he pronounced the last words, he sprang upon her back, and was out of sight almost in a moment.

The Arabian horses are in general less in stature than our own, being not above fourteen, or fourteen hands and a half, high. Still, however, they must be considered as the first and finest breed in the world; and that from which all others have derived their principal qualifications. It is even probable that Arabia is the original country of horses; since there, instead of crossing the breed, they take precaution to keep it entire. In other countries they must continually change the races, or their horses would soon degenerate; but there the same blood has passed down through a long succession, without any diminution either of force or beauty.

The race of Arabian horses has spread itself into Barbary, among the Moors, and has even extended across that extensive continent to the Western shores of Africa.

Among the Negros of Gambia and Senegal, the chiefs of the country are possessed of horses, which, though little, are very beautiful, and extremely manageable. Instead of barley, they are fed in those countries with maize, bruised and reduced into meal, and mixed up with milk when they design to fatten them. These are considered as next to the Arabian horses, both for swiftness and beauty; but they are still rather smaller than the former.

The Arabian breed has been diffused

into Egypt as well as Barbary, and into Persia also. The horses of these countries a good deal resemble each other. They are usually of a slender make; their legs fine, bony, and far apart; a thin mane, a fine crest; a beautiful head; the ear small and well pointed; the shoulder thin; the side rounded, without any unsightly prominence; the croup is a little of the longest, and the tail is generally set high.

Next to the Barb, travellers generally rank the Spanish genette. These horses, like the former, are little, but extremely swift and beautiful. The head is something of the largest; the mane thick; the ears long, but well pointed; the eyes filled with fire; the shoulder thickish, and the breast full and large. The croup round and large; the legs beautiful, and without hair; the pastern a little of the longest, as in the barb, and the hoof rather too high. Nevertheless, they move with great ease, and carry themselves extremely well. Their most usual colour is black, or a dark bay.

The Italian horses were once more beautiful than they are at present, for they have greatly neglected the breed. Nevertheless, there are still found some beautiful horses among them, particularly among the Neapolitans, who chiefly use them for the draught. In general, they have large heads and thick necks. They are also restive, and consequently unmanageable. These faults, however, are recompensed by the largeness of their size, by their spirit, and the beauty of their motions. They are excellent for show, and have a peculiar aptitude to prance.

The Danish horses are of such an excellent size, and so strong a make, that they are preferred to all others for the draught. There are some of them perfectly well shaped; but this is but seldom seen, for in general they are found to have a thick neck, heavy shoulders, long and hollow back, and a narrow croup: however, they all move well, and are found excellent both for parade and war. They are of all colours, and often of whimsical ones, some being streaked like the tiger, or mottled like the leopard.

The German horses are originally from Arabian and Barbary stocks; nevertheless, they appear to be small and ill shaped: it is said also, that they are weak and washy. The Hungarian horses, on the other hand, are excellent for the draught as well as saddle.

The Dutch breed is good for the

draught, and is generally used for that purpose over all Europe; the best come from the province of Friesland. The Flanders horses are much inferior to the former; they have most commonly large heads, flat feet, and swollen legs; which are essential blemishes in horses of this kind. The French horses are of various kinds; but they have few that are good. The best horses of that country come from Limosin: they have strong resemblance to the Barb, and, like them, are excellent for the saddle; but they are slow in coming to perfection: they are to be carefully treated while young, and must not be backed till they are four years old. Normandy furnishes the next best; which, though not so good for the road, are yet better for war. In general, the French horses have the fault of being heavy shouldered, which is opposite to the fault of the Barb, which is too thin in the shoulder, and is, consequently, apt to be shoulder-slipped. The French have lately imported many stallions and brood mares from England.

It has not been without great assiduity, and unceasing application, that the English horses are now become superior to those of any other part of the world, for size, strength, swiftness, and beauty. It was not without great attention, and repeated trials of all the best horses in different parts of the world, that we have been thus successful in improving the breed of this animal: so that the English horses are now capable of performing what no others could ever attain to. By a judicious mixture of several kinds, by the happy difference of our soils, and by our superior skill and management, we have brought this animal to its highest perfection. An English horse, therefore, is now well known to excel the Arabian in size and swiftness, to be more durable than the Barb, and more hardy than the Persian. An ordinary racer is known to go a mile in two minutes; and we had one instance, in the admirable Childers, of still greater rapidity. He has been frequently known to move above eighty-two feet and a half in a second, or almost a mile in a minute: and no horses can any way equal our own, either in point of beauty, swiftness or strength.

HORSE-BALLS. Masses of medicine, of the consistence of dough, which are passed down into the stomach of a horse for the cure of his diseases.

HORSEMANSHIP. The art of riding safely and gracefully on horseback.

We shall present the reader with a few useful hints from Mr. Hughes's Treatise on Horsemanship.

"If you would mount with ease and safety, stand rather before the stirrup than behind it; then, with the left hand, take the bridle short, and the mane together, help yourself into the stirrup with your right, so that, in mounting, your toe does not touch the horse. Your foot being in the stirrup, raise yourself till you face the side of the horse, and look directly across the saddle; then, with your right hand, lay hold of the hinder part of the saddle, and, with your left, lift yourself into it.

On getting off the horse's back, hold the bridle and mane in the same manner as when you mounted, hold the pommel of the saddle with your right hand, to raise yourself; bring your right leg over the horse's back, and let your right hand hold the hind part of the saddle, and rest a moment on your stirrup, just as when you mounted. But beware that, in dismounting, you bend not your right knee, lest the horse should be touched by the spur. Grasp the reins with your hand, putting your little finger between them. Your hand must be perpendicular, your thumb uppermost upon the bridle.

Suffer him not to finger the reins (the groom, in holding the horse), but only to meddle with that part of the head-stall which comes down the horse's cheek: to hold a horse by the curb, when he is to stand still, is very wrong, because it puts him to needless pain.

When you are troubled with a horse that is vicious, which stops short, or, by rising or kicking, endeavours to throw you off, you must not bend your body forward, as is commonly practised in such cases; because that motion throws the breech backward, and moves you from your fork or twist, and casts you out of your seat: but the right way to keep your seat, or to recover it when lost, is, to advance the lower part of your body, and to bend back your shoulders and upper part. In flying or standing leaps, a horseman's best security is the bending back of the body.

The rising of the horse does not affect the rider's seat; he is chiefly to guard against the lash of the animal's hind legs, which is best done by inclining the body backward. Observe farther, that your legs and thighs are not to be stiffened, and, as it were, braced up; but your loins and body should be lax and pliable,

like the coachman's on his box. By sitting thus loosely, every rough motion of the horse will be eluded; but the usual method of fixing the knees only serves, in great shocks, to assist the violence of the fall. To save yourself from being hurt, in this case, you must yield a little to the horse's motion; by which means you will recover your seat, when an unskilful horseman would be dismounted.

Take, likewise, particular care not to stretch out your legs before you; because, in so doing, you are pushed on the back of the saddle: nor must you gather up your knees, as if riding upon a pack, for then your thighs are thrown upwards. Let your legs hang perpendicularly, and sit on the thickest part of your thighs, but let them bear inward, that your knees and toes may incline inwards likewise. If you find your thighs are thrown upwards, open your knees, whereby your fork will come lower on the horse. Let the hollow or inner part of the thighs grasp the saddle, yet so as to keep your body in a right poise. Let your heels hang straight down; for, while your heels are in this position, there is no danger of falling."

The following is an excellent rule:—"If your horse grows unruly, take the reins separately one in each hand, put your arms forward, and hold him short, but pull him not hard with your arms low; for, by lowering his head, he has the more liberty to throw out his heels: but if you raise his head as high as you can, this will prevent him from rising before or behind; nor, while his head is in this position, can he make either of these motions.

Is it not reasonable to imagine, that, if a horse is forced towards a carriage which he has started at, he will think he is obliged to attack or run against it? Can it be imagined that the rider's spurring him on, with his face directly to it, he should understand as a sign to pass it? These rational queries are submitted to the serious consideration of such as are fond of always obliging their horses to touch those objects at which they are, or affect to be, frightened." See HACK.

There is a circumspection to be adopted advantageously by the unskilful, which will, at first, give them the semblance, and afterwards the reality, of good riding. The method of taking a rein in each hand occasionally (much in use of late years) gives the rider great command over the mouth, neck, and fore-quarters, of a horse.

A good horseman, without pressing too

much upon the mouth of his horse, is always prepared to assist him, in case of a blunder, with the united exertions of his arm, chest, shoulders, and loins; and, from the force of constant habit, this comes instinctively, as it were, for the occasion, even if the accident be unnoticed, or the mind otherwise engaged. Both hands upon the bridle are necessary and becoming, in riding fast down steep descents or stony ways; and it is extreme folly to commit the reins to the neck even of the safest horse.

Some speedy and jadish horses will, after they have got their provender, on being travelled briskly thirty or forty miles, at the next stage fall into a slow trot, bend their necks, foam at the mouth, refuse to bear at all upon the bit, and keep perpetually upon the curvet, as if they longed to be upon the parade. Whenever this happens, the best way of concluding the business is to walk them the remainder of the journey, and then give them a week's rest.

Previous to mounting, every gentleman will find his account in examining both horse and furniture with his own eyes and hands; for, however good and careful his groom may generally be, it is a maxim, that too much ought not to be expected from the head of him who labours with his hands. Besides, all such sedulously avoid trouble, particularly in nice matters. For example, see that your curb is right, that your reins are not twisted, that your girths, one over the other, still bear exactly alike; that the pad be not wrinkled up; but, above all, that your saddle lies exactly level upon the horse's back. Mr. Lawrence says, he has known capital grooms, in the service of sporting gentlemen, so careless in placing a saddle, that it has absolutely worn awry, and would never sit even afterwards.

In journey-riding, every person ought to know, that no great performances are to be expected from a hack which is not in thorough condition. If he has been lately from grass or straw-yard, or has been kept within upon the saving plan of abridging his food in proportion to his work (a favourite measure with some people), he will receive injuries from a long journey, however good he may be in nature. In such case, from thirty to five-and-forty miles is a sufficient day's work.

On the subject of *female equitation*, or ladies riding on horseback, a quotation from Mr. Hughes will be acceptable. He

describes, as most proper, the following method of mounting.

"A person should stand before the head of the horse, holding with each hand the upper part of the cheek of the bridle. Then the lady must lay her right hand on the near side of the pommel, and her left hand on the left shoulder of a gentleman (or a servant), who will place both his hands together, the fingers and thumbs being interwoven with each other. This being done, let the lady put her left foot on the gentleman's hands, and, giving a little spring, she will be vaulted into the saddle in a moment. When she is thus seated, let her rest the ball of her left foot firm in the stirrup; and, to prevent accidents, she should wear Italian shoes, with very long quarters, and the heel of the shoe coming forward to the middle of the foot. Ladies' shoes made in the common fashion are dangerous, because the foot rests in the hollow between the toes and the heel. Remember that the pommel of the saddle should be made very low, that the lady's knee may not be thrown too high, and the stirrup should hang low; both which circumstances will help to give her a graceful figure, and add greatly to those charms which nature has bestowed on her. When she is thus placed, let her take her whip in her right hand, near the head, with her thumb upon it, and the four fingers under it, holding it obliquely, so that the small end of it may be some inches above the middle of the horse's hind-leg. The arm that supports the whip is always to hang straight, but with a kind of negligent ease: nothing looks more awkward than a lady's holding the whip with her arm crooked at the elbow. A lady should hold her bridle moderately slack, with her little finger under the reins, and the next two fingers passing between the reins, on the top of which her thumb must be placed. Being thus seated, she will either walk her horse off gently, or put him into his other paces at her pleasure.

The pommel of a lady's saddle should be always made with a turn-again screw, to take off, in case the rain, wind, or sun, are troublesome, when a lady may ride on the contrary side of the horse."

The great secret of riding is to be able on all occasions to take a corresponding motion to that of the animal who carries you.

Riding to hounds.—There are few, if any, works in existence, which contain more sound sense, and plain reasoning,

than Adams's Horsemanship; he was a great master both of the science and practice of riding; and his ideas on the subject (with trifling exception) are so clearly expressed, that his meaning can never be misunderstood. If I were disposed to find fault with what Adams has said on the subject of riding, I should say that his mode of instruction was perhaps a little trifle too much *à la militaire*, which, however well it may be calculated for the purpose of pomp and parade, is by no means suited to the sportsman; and, indeed, it is tolerably evident, that though a most accomplished horseman, either in the school, on the parade, or on the road, he had seldom, if ever, followed the hounds. If other proof were wanting of Adams's ignorance on the subject of hunting, abundant evidence is given in his Appendix, p. 181, where he gravely talks of a *horse hunting three times a week!* I make no doubt, that Adams would have ridden well to hounds; but not till after some little practice; though it must be admitted, that riding masters, generally speaking, are but indifferent workmen over a country. The same remark will apply, perhaps in a still greater degree, to those persons, who in circuses and similar places, cut such extraordinary capers, and astonish the gaping crowd by feats of dexterity on horseback.—The celebrated Makeen, who, in his day, arrived at the very pinnacle of his profession as a circus rider, appeared, when following the hounds, completely out of his element; and, across a country, was not only a bad, but a very timid, rider: this I assert, not upon report, but from ocular demonstration; indeed I have, at various times, seen several other professional riders in the field; but never met with one that rode well or boldly over a country. At the first blush of the case, this may seem strange; but it is, nevertheless, easily accounted for; or, in other words, the problem admits of an easy and satisfactory solution. In the first place, the riding of all these professors is so regulated by rule and method, and the horses so completely drilled for the purpose, that it becomes, as it were, mechanical; while riding after hounds, on the contrary, is not susceptible of that systematic order, which constitutes the very perfection of the school; and, therefore, a professor of riding, from whom much is expected, makes but a poor figure after hounds, unless by practice, he render himself a workman. But it would seem

that riding masters are not fond of hunting; they are seldom seen in the field; and I never yet observed one there who appeared to advantage. Further, I have met with riding masters, who were able to give the best possible instructions for the management of the horse, and who, when the animal was put over the bar, would not fail to mark the slightest disorder in the rider, but who, nevertheless, avoided, if possible, riding the horse over the bar themselves. Hence it may be easily perceived that the present article was indispensable, in order to render the article on horsemanship as complete as possible.

While on this subject, it may not be amiss also to notice, that the military style of riding is by no means well adapted for following hounds. The military style has been uncommonly well described by Adams: in this place, it can be only requisite merely to observe, that it may look very well in soldiers, may be admirably calculated for military purposes, for aught I know to the contrary; but the straightness of the knee, and the stiffness of the leg and thigh, together with the toe merely stuck in the stirrup, circumstances so characteristic of the present military style of riding, are completely and absolutely at variance with the method of riding across a country, as far as regards safety and ease, and indeed as far as regards every thing else desirable in following hounds. I have certainly seen military gentlemen riding in their own style after hounds; but I never thought it looked well; in my estimation, it had not a sportsman-like appearance; and, what is worse than all—it is not safe. This reminds me of the fate of Lord Arthur Paget. This gallant young Nobleman belonged to the 10th Hussars, a party of whom were lying in York in the year 1825. In the month of November of that year, I met the York and Ainsty fox hounds at Skelton Springs, where I saw Lord Arthur Paget, and several other officers of the same corps to which he belonged. They rode in the military style. A few days afterwards, Lord Arthur Paget was killed by a fall from his horse while hunting either with the same hounds or with a neighbouring pack. I was not present when the accident happened; but from the account I received of the affair from a brother sportsman, I have reason to believe he would not have lost his life, had he ridden in the correct hunting style—with stirrups short rather than long, and the feet home in them.

The great secret, or the very essence, I may say, of the art of riding, consists (as indeed Adams has slightly noticed) in assuming or taking a corresponding motion to that of the horse; or, in other words, the rider should accommodate himself, with a pleasant pliability to every motion of the horse: whenever it is otherwise, his seat will be unpleasant, unsafe, and indeed dangerous. This may be regarded, not only as the essence of horsemanship (as I have already observed) but as the fundamental principle, from which subsequent excellence or proficiency must arise; and cannot be too deeply impressed on the minds of those who feel any interest in the subject. On this account, I would advise those who wish to become excellent horsemen to practise without stirrups, which they will find of the greatest possible service in forming a *close* secure seat. Respecting the *close* seat, it may not be amiss here to remark, that there are to be found advocates for the *loose* seat. On this subject, I had, some few years ago, a conversation with a riding master, who seemed to think that a *loose* seat in hunting was to be preferred: on expressing my surprise at such a notion, he endeavoured to prove the correctness of his position by observing, that, in case of a fall, the horse would not be so likely to roll on the rider, as the latter would most probably be thrown several yards from him. The man who reasoned thus is a good rider in the school, and has an elegant seat on horseback; but, like some others of his fraternity whom I have met with, he is timid; and his remarks on this subject were evidently the offspring of fear rather than philosophy; nor, when duly considered, can any thing be more remote from truth. Admitting that a loose seat will be the cause of precipitating the rider to a distance in case of the horse falling, the very circumstance itself appears to me more pregnant with danger than the chance of the horse rolling upon his rider. The most imminent danger, I conceive, of a horse rolling upon his rider, is when, in jumping timber, a wall, or other fence with a stiff top, the horse catches it with his fore feet, and goes "*bull-neck over*," to use a very expressive phrase of a sporting friend; and I am in doubt whether in this case the loose rider is not in more danger than the close rider. At all events, a loose rider must calculate on a great number of falls, since, with a seat of this description, he must be liable to be unhorsed on every trifling irregularity, cir-

cumstances which are constantly occurring, in following hounds across a country.

But it does not always happen, that a horse comes "*bull-neck over*," if he tips the top of a gate or style; since one which I at present possess, a good hunter too, and has carried me many times after hounds, has frequently carried off the top bar of a gate, but kept his legs, nevertheless; indeed such a circumstance, when a strong horse comes thus in contact with a weak or rotten gate or rail, is sure to happen.

In advising a young sportsman to practice riding without stirrups, it must not be understood, that I consider the stirrups as useless: on the contrary, the ease of the sportsman depends mainly upon them, and frequently his safety also. I am aware that riding masters pretend (and Adams among the rest) that the use of the stirrup adds no security to the seat; but, if they mean to apply this maxim to riding after hounds, it is not only untrue, but a positive absurdity. The knee and the calf of the leg are the main holds of the horseman in riding over fences, and, indeed, in riding over a country in general, and these cannot be applied with half their embracing force to the sides of the horse, without the use of the stirrups: the experiment is easily made; and those who choose to take the trouble of making it will not only perceive the evident utility of the stirrup, but be fully convinced, that a short stirrup rather than a long one, and the foot home in it, is, of all positions, that which enables the rider to embrace his horse most firmly, and consequently is the most conducive to his safety.

In speaking of *short stirrups*, it will be necessary to define more particularly what I mean by the term; and this I will endeavour to do, in language sufficiently clear, so as to avoid, or prevent, even the possibility of misconception. The seat upon horseback may be compared to the seat upon a common chair; and, therefore, for hunting, I would have the stirrup of that precise length as would allow the rider to sit fairly upon the saddle: if, for instance, it be taken up so short that it pushes or removes the rider towards the cantle of the saddle (which he will easily perceive on trying the experiment) it is then too short; but, while the rider can sit fairly down in the saddle, I am of opinion the stirrup cannot be too short.

Moreover, in regard to the stirrup, I am by no means convinced that Adams

is correct in recommending the heel to be sunk lower than the toe: such a position may appear more elegant in the school, on the parade, or on the road (since fashion renders forms elegant at one period which at another would be considered completely outré); but I have no hesitation in saying, that it is not the true position for hunting: in jumping, for instance, it is out of the question, the toe rather than the heel will be necessarily sunk; and, as far as relates to the closeness of the seat, and the security of the rider, a person need only make the experiment once to be perfectly convinced, that, with the heel sunk, he loosens the grip, or embracing power of the knee, and of the calf of the leg, particularly of the latter: let him reverse the position of the foot in some degree, and then judge for himself.

Contrary to the maxims of riding masters, I am decidedly of opinion, that the muscles of the thighs are capable of very little adhesive or compressive force, and consequently the rider must necessarily depend for security upon the knee and calf of the leg (preserving always the balance of the body) which, as I have already observed, he will find very materially assisted by a short stirrup. Moreover, the firm grasp of the calf of the leg loosens, in some trifling degree, the gripe or pressure of the thigh to the saddle; and, after all, the young sportsman may rest assured, that nothing can hold him so closely to the saddle, so firmly, or so securely, as the adhesive gripe of the knees and calves of the legs, when jumping.

The instructions of riding masters are to keep the body erect, with the shoulders well back, and the chest thrown out: as general directions, these are correct enough; but, as in hunting, so many incidental or unforeseen circumstances occur, these instructions, though kept in mind, must be made subservient accordingly. Therefore, upon the incidental irregularities which occur in hunting, I must once more observe, that the rider must make his motions correspond with those of the horse, and by keeping this maxim steadily in view, he will seldom be at a loss. It sometimes happens that a steep bank opposes the sportsman's progress, which it is not possible to jump (and banks indeed present very frequently, awkward jumps, even when jumping is practicable) but every perfect hunter will make his way over such places, and the rider must suit himself to the motion accordingly.

Having made the preceding remarks, the management of the bridle would appear the next object of consideration; and much more depends upon this, than a superficial observer would be induced to suppose—in fact, it may be said that the finishing excellence of a horseman is the skilful management of the bridle. Adams particularly notices the circumstance, that grooms are generally very deficient in this respect, and I have received ocular demonstration of the truth of his remark many scores of times. The fact is, grooms are drilled to riding from mere practise; many of them cannot read, and those that possess some trifling knowledge of English, are seldom inclined to exercise it in perusing what has been written on the science of Horsemanship—they never study riding as a science; and hence, though some of them appear to ride well, they are unable to describe the true principles of what may, in some degree, be called their own profession. I have repeatedly witnessed falls, in jumping, from the awkwardness in which the groom has managed the reins; and, even in huntsmen and whippers-in, I have occasionally witnessed something of this sort. Sebright, (huntsman to Lord Fitzwilliam) is perhaps as good a rider as any huntsman or groom in the kingdom, and yet I have frequently thought he *wanted a finger*—indeed, I am not aware that I ever met with an ignorant man that was any thing like perfect in this respect. If it be allowed that huntsmen and whippers-in generally ride well, it must, at the same time, be admitted, that they have heavy hands, or, in other words, that they have no idea of the delicate and scientific management of the bridle.—Shaw, that for some years hunted the Duke of Rutland's fox-hounds with great éclat, was perhaps an exception. Shaw was a very superior man in his station, and I consider him as good a huntsman as ever fell under my observation.

It is, beyond all question, the heaviness of the rider's hand that renders the horse's mouth hard or insensible; but it is certainly a defect not very difficult to remedy; for, as a horse very soon accommodates himself, or his mouth, to a heavy handed rider, so also is he easily brought, by proper management, to ride as lightly and as pleasantly as possible. I am of opinion that a horse's mouth cannot be too delicate; though I am perfectly aware, that there are those that think otherwise; and it is common enough for unreflecting

sportsmen to remark, in opposition to this, that they like a horse, in hunting, to pull a little: the truth is, that all horses, if they are good for any thing as hunters, pull sufficiently hard in the eagerness of pursuit, and it therefore does not follow because a horse is very obedient to the bridle, that he does not therefore pull sufficiently hard when he is following the hounds; since, when he is extended in the gallop, he must take a support from the hand.

What is called *Lifting* horses at their leaps or jumps is a matter which does not appear well understood; or, at least, is frequently practised very disadvantageously. Lifting a horse at his leaps, if he is to be lifted at all, is an operation which requires skilful, delicate, and dextrous management; and if it be not thus managed, it must always be injurious in its applications, and sometimes disastrous. The intention of lifting horses at their jumps is to assist them; and in order to arrive at a correct notion of the manner in which this operation can be applied to advantage, we must, in the first place, endeavour to take a view of the form and manner in which a horse prepares for and accomplishes the object. It appears to me that the manner in which a horse prepares himself for a leap, or in more modern phraseology, for a jump, may not be unaptly compared to the bending of a bow—the jump of a horse is a propelling spring, performed principally by the elastic power of the tendons, in which, however, the muscles materially assist; and in order to accomplish a jump, the horse compresses or draws himself together, and by the elastic force which he thus acquires, he is enabled to propel himself to certain heights and certain distances, which are denominated jumps or leaps. If we observe a horse at large, in the field, without any rider, preparing for a jump, preparing for instance, to jump out of his own paddock into another, we shall perceive that he lowers his head (particularly if a standing jump) immediately before he takes the spring, as if to give greater force or effect to the following motion: hence, it is very fair to conclude, that this is the natural and best mode for a horse to prepare for the spring: even when mounted, a horse will prepare himself precisely in the same way, unless controlled by his rider; though it must be admitted that this lowering of the horse's head is much more perceptible in the standing leap than in the flying leap; but it certainly

takes place in each. It follows, consequently, if the horse is to be lifted, that the utmost care should be taken not, in the least, to retard, or rather to obstruct, his natural motions, since his elastic force or spring must be weakened or reduced, in precise proportion to the force of the obstruction interposed. Hence we may easily perceive, that the utmost delicacy of the finger or hand is amply sufficient for the business in question, and if the mouth of the horse be merely felt by the finger, that is as much force as, generally speaking, ought to be applied till the horse has fairly taken his spring; but when the horse is descending, as it were, the feel of the finger or hand should be increased, and indeed continue increasing, till he has fairly landed; and by this means the horse lands, or comes to the ground, more safely and more pleasantly both to the rider and to himself. Many excellent sportsmen I have seen go at their jumps with as loose a head or rein as possible, and this, after all, is the best way. It is true, when a horse has been long accustomed to be ridden at his leaps in a different manner, and performs well, it may be advisable to continue to ride him in the same way, or at least to alter the system gradually. Further, when, in the length of the chase, a horse has become excessively fatigued, he will naturally want a much greater support from the hand, even to keep him from falling; but this has no relative connexion or analogy with lifting at the leap. On all occasions, the judicious application of the hand or finger, is of the most essential service, and gives the rider a sort of superlative command of the horse which he cannot acquire by other means.

I am an advocate for the double bridle in hunting, and although the animal I rode might be what is called a snaffle bridle horse, and have as delicate a mouth as possible, still I should be inclined to use the double bridle, for the following reasons: the horse more readily answers the hand, and is consequently more manageable; and through heavy and distressing ground, or miry lanes, is much more easily held together. If a horse be suffered to exhaust himself in heavy ground, of course the rider had better return home, unless he have at hand another horse to mount.—It gives me much pleasure to see a sportsman ride boldly; but I like to see him exercise sound judgment also; and unless his courage is accompanied with discretion, it is at best

but a dangerous quality. I would advise every necessary precaution in hunting, as in any other pursuit where the feelings are highly excited; and on this account, I feel no hesitation in recommending the spring stirrup, and the spring bar at the saddle. Some high spirited sportsmen may perhaps despise such precautionary preparations; but that will not alter my opinion. As instruments for common riding, the spring bar and spring stirrup are unexceptionable; while, in case of a fall, I do not think it possible for the horse to drag his rider, since, if the foot, in falling, hangs in the stirrup, the latter must open, if the stirrup leather be not immediately liberated from the saddle altogether by means of the spring bar.

The saddle pommel I would have as low as possible; and the use of the hunting truss and belt are equally advisable.

I have already had occasion repeatedly to advert to the judicious observations of Adams: I will here quote a few lines from him as they cannot be too deeply impressed on the mind of every young sportsman, while their sterling truth will be felt and acknowledged by every veteran: Speaking of the leap, he observes, "I should call it rashness in me, who can sit a horse over any height or distance he can cover, to ride over a rail, bar, or gate, were I not well assured of his steady and safe manner of leaping; and it is equal rashness in a person who has not the knowledge how to sit and support a horse over a leap (be the horse ever so steady and safe a leaper) because the unskilful rider is not only in danger of being thrown, but likewise of balking the horse, making him blunder, pulling him into his leap, and the like."

On the Seat when Leaping.—"The place of the legs (observes Adams) must be perpendicular from the knee; if you place them backward, the action which the body must take, would loosen them and then you have no hold." Now, I am inclined to think, that the situation of the leg should not be exactly "perpendicular from the knee," but gently inclining backwards, such a position of the leg enabling the rider to make use of more compressive or adhesive power, and consequently enabling him to sit more closely and more firmly on the saddle; nor have I the least doubt, that, if the reader will take the trouble to try the experiment, he will find I am borne out in such a conclusion. It is true, in a small or ordinary leap, there is no necessity for

any excess of adhesive power, but when a rasper is to be got over, the necessary violence in the action of the horse is so great that the firmest hold with the legs and thighs becomes indispensable; and the position (of the legs) which I have pointed out will be found to be that which is the best calculated to accomplish the object with ease and safety both to the horse and rider.

Young riders can scarcely be induced to lean the body backward enough when the horse has taken his spring, and for this very reason they cannot preserve a motion in consonance or correspondence with that of the horse, and the consequence is, that their seat becomes disordered or disturbed; they are thrown forward and sometimes completely unhorsed. They should lean freely and fearlessly backward; since they may rest assured, it is not possible for them to overshoot the mark or lean too much backward.

Experienced sportsmen, in leaping, frequently elevate the whip hand as the horse is descending, a practise which the professed riding master will by no means tolerate. According to the doctrine of the riding master, the body should be kept square and the whip hand low, as (says he) if the whip hand be raised, the body of the rider must be pulled out of the square, and the balance destroyed. So far it may be said to be all very well; but yet it will scarcely, I think, bear the test of examination. When the horse has taken his spring, and is descending or coming to the ground, the left or bridle hand is necessarily drawn forward; and if, at the same moment, the whip hand be elevated and thrown back, the balance at least of the body is preserved, however it may be drawn out of the square. And here it may be very justly observed, that some horses, when descending, bring their noses lower than others, and these consequently require the accommodation of the bridle hand to a greater extent. In the season of 1824-5, I rode a fine grey mare, that in descending brought her nose very low indeed, and consequently was apt to pull a strange rider out of his seat. Some months before she came into my possession, a gentleman's huntsman (a youth) mounted her for the purpose of following his harriers, but she, in leaping, pulled him over her head; and though this lad attempted to ride her several times, he never completely succeeded in accommodating her peculiar mode of bringing

down her nose. Nevertheless, she was not difficult to ride, and, as a hunter, never perhaps had a superior.

If, however, I feel no disposition to censure the practise of elevating and throwing back the whip hand in the leap, there is another purpose to which I have sometimes seen the same hand applied, in the same operation of the horse, which cannot be too severely censured:—I allude to taking hold of the cantle of the saddle, a method which some few sportsmen adopt either from ignorance, fear, awkwardness, or from some other motive equally reprehensible. To say nothing of the unsightly appearance which such a position presents, the object of the rider is frustrated by the very means which he puts in practise to accomplish it. Taking hold of the cantle of the saddle with the whip hand, renders it impossible for the rider to make use of his bridle hand in a proper manner; consequently he endangers the safety of the horse, and renders his own seat as insecure as possible. A person who adopts this highly injudicious method of riding, is constantly exposed to serious accidents. In the season of 1826-7 Mr. Crosthwaite of Liverpool, thus unfortunately fractured his arm, while hunting with the Liverpool harriers at Ditton.

Riding to Hounds is a business where courage is regarded as an indispensable qualification; but, although I am quite willing to allow to courage whatever may justly be its due; yet it cannot be denied that getting well over a country depends much more upon the judgment; and he that would be a good workman, must unite the two as much as possible, never forgetting, that the former ought to depend on the latter:—"The better part of valour is discretion."

It may be very well observed, that hunting countries vary very much; and therefore the judicious sportsman, or he that would ride well after hounds, must form his judgment and method from the nature and aspect of the country which he has to cross. Leicestershire is uniformly allowed to be the first fox hunting country in the world; and its excellence arises from an union of several fortuitous circumstances:—in the first place, there is a preponderating quantity of grass land; in the next, the inclosures are large; it is but little intersected with rivers; and, lastly, the land, being for the most part stiff clay, it is firm, and consequently well calculated for both hounds and horses.

The fences are, for the most part, quickset hedges, which frequently present high jumps, but which are, nevertheless, in general, better to get over than any other field partitions. The young quickset fences may be said to present rather awkward jumps, as they are protected on each side by rails of a moderate height; but, even these fences have been much improved of late years, since the plan of protecting the young quicksets with a double row of rails merely, without the addition of a ditch, has been adopted. The covers too, which are of the best description, are placed at convenient distances, round which are formed hand-gates; and, indeed, it may be justly remarked, that Leicestershire, naturally well calculated for fox hunting, has received every possible improvement of which it is susceptible from the hand of man. Such is the Leicestershire country with little exception:—Charnwood Forest is perhaps the only material exception, which is hilly, rough, stony and dangerous; forming, however, a good cub hunting country; hunted in the regular season but seldom, and then chiefly for the purpose of rattling out the foxes. The Quorndon hounds, the most numerous pack in England, hunt this country.

At a little distance, on the Rutlandshire side, is situated the splendid fox hunting establishment of the Duke of Rutland. The country hunted by his Grace is not so good as the Quorndon country; and some parts of it are very heavy indeed. On what, for the sake of distinction, I will call the Northamptonshire side (though strictly speaking, the term is not geographically correct) the Earl of Lonsdale's kennels are situated; and his Lordship's country is not equal to the Quorndon. However, these three extensive packs approach Melton Mowbray in different directions; and hence may be perceived the reason why the little town of Melton is regarded as the metropolis of fox hunting.

Northamptonshire, which joins the county of Leicester on the southern side, contains several fox hunting establishments, as, for instance, Lord Fitzwilliam's and the Pychely; but the Northamptonshire country presents a different aspect to Leicestershire, is not so pleasant to ride over, is, in some parts, deep and heavy, particularly in the neighbourhood of the celebrated Field of Naseby. Between Northamptonshire and London the country does not appear so well calculated for fox

hunting; but, from a superficial observation, cannot, I should suppose, be difficult to get over.

Surrey is hilly, in some parts; but there are few awkward fences. The fences in Hampshire are easily got over; but the country is flinty, which renders the riding unpleasant.

If we glance at what may be called the northern side of Leicestershire, we immediately come in contact with Mr. Meynell's fox-hounds. This gentleman's country is situated principally in the southern part of Derbyshire; and is, on the whole, but little inferior to Leicestershire. Lincolnshire is a good scenting country, being for the most part, grass land: it is perhaps the best scenting country in England; but, on the whole, inferior to Leicestershire.

Yorkshire contains more packs of fox-hounds than any other county in England; but this arises, in some degree, from its great extent. Some parts of Yorkshire are well calculated for the sport under consideration; but much of it is difficult both for horses and hounds: the fences are mostly quickset hedges; which, after having attained a certain growth, are cut, and what the farmers, I believe, denominate *plashed*: to speak more intelligibly, the hedge is cut about the middle, leaving the bottom part about four feet high; all the stems or thick wood, however, is cut in a sloping or oblique direction, so that they thus present sharp points upwards, upon which a horse could scarcely fail to be staked should he make the least mistake in jumping them. Such fences are frequently to be met with in the Badsworth country; and also in Lord Harewood's; some parts of the latter I thought very heavy. However, I have enjoyed excellent sport in several places in Yorkshire; some few parts of which I thought equal to Leicestershire.

Lord Darlington's country, part of which is in Yorkshire and part in Durham, I consider an awkward country; and one in which it is difficult to kill foxes.

The variations of countries are indeed very great; and if we look at the north-western side of the kingdom, the aspect is as different as possible from any of those of which I have been speaking. In Lancashire, there are no fox-hounds; in Cheshire, the adjoining county, there are several packs, the principal of which is kept on Delamere Forest (Sir Harry Mainwaring's) which in quality is equal

to any in England; though not so numerous as some other packs.* Cheshire must be a difficult country for a stranger. The fences (which are of very frequent occurrence) appear no way formidable at a distant view, and their true character is only perceived on a near approach. Generally speaking, they consist of a wide, awkward ditch, the mould from which is formed into a bank, upon the top of which is generally placed a rotten, briary hedge; many of these cannot be taken at a flying leap; and it requires some little practise before a horse and his rider find themselves comfortable in crossing them. Brooks too are not of very unfrequent occurrence; but what has generally surprised me the most in Cheshire is the gate places. The gates, particularly in the immediate vicinity of the farm houses, are very often found wide open; yet, to jump the fence will be sometimes preferable to passing through the gate place! The fact is, the farmers, either from indolence, or some other motive, allow the gate places to become belly deep in wet miry clay, and on this account some of them are absolutely impassable. It is true, I have met with something of this sort in other countries, and even in Leicestershire; but these horrible gate places are of more frequent occurrence in Sir H. Mainwaring's country than in any other which has fallen under my observation. The best part of Sir H. Mainwaring's country, as far as I am able to form an opinion, is that which is situated in the neighbourhood of Nantwich, known by the name of the Wrenbury country.

Sir Thomas Stanley, of Hooton Hall, Cheshire, keeps a pretty pack of fox-hounds; but his country, comprised between the rivers Dee and Mersey, is of small extent; and worse for either horses or hounds than the one which I have just been noticing.

On the Staffordshire side of Cheshire, Mr. Wicksted's hounds frequently appear. This gentleman draws all Sir John Broughton's covers; and his country is composed of part of Staffordshire and part

of Cheshire. It is, like the last, a difficult country for hounds and horses; and where, of course, foxes are difficult to kill.

Without pursuing this subject further, it may easily be imagined that scarcely two countries present exactly the same aspect; and consequently the first object which ought to occupy the attention of the sportsman, as far as relates to riding to hounds, is the nature of the country.

It must also be recollected, that the system of fox hunting has assumed a different character from that which distinguished it a century ago. The heavy slow-hound, the celebrated old English hunter, and the equally celebrated old English sportsman, are no longer known.

The pursuit of the fox was formerly a work of three or four hours; and frequently extended to a much greater length of time. According to the modern system, the business is generally completed in about an hour; and the fox is often killed, but more frequently lost, in half that time. The old English hunter was a large, heavy, powerful horse, whose excellence consisted principally in his leaping or jumping; and, in fact, it may be justly observed, that he was very well calculated for the hounds which he had to follow; but, with modern hounds, he would have been run out of sight in a very few minutes. "*It is the pace which kills,*" an observation common enough in the mouth of a sportsman; one that merits the deepest consideration, and which cannot do otherwise than carry conviction to every reflecting mind. If a horse be pressed, and continued but only for a short time at the top of his rate, he becomes so exhausted that he cannot clear his jumps; and he thus endangers his rider's neck, to say nothing of losing the sport; but, as far as relates to the old English hunter, as the slowness of the pursuit allowed him to go *within himself*, or at his ease, so he was generally able to clear his leaps; and although he might not be able to gallop half as fast as the modern hunter, he might perhaps be as good a fencer, if not better, since even cart horses have been known to clear enormous jumps.

In modern hunting, however, it is indispensable that the horse should possess great speed, if his rider is to enjoy the diversion; and as the business of the chase is so much more rapid than formerly, it requires more judgment in the sportsman in riding to hounds; yet, since no blown horse can be trusted even at a moderate jump, the necessity of keeping the horse's

* Sir Harry Mainwaring's pack generally consists of something more than sixty couple, and they hunt four times a week. The Duke of Rutland's will number about seventy couple. Lord Darlington keeps about the same number. The Quorndon establishment generally contains nearly one hundred couple, and they used to hunt every day, except Sunday.

wind in him must appear so obvious as to need no further elucidation.

Hitherto I have confined my observations, as far as relates to hounds, to those which are used in the pursuit of the fox; not that I despise harriers: on the contrary, I have frequently enjoyed very pretty sport in harehunting; but as riding to fox-hounds requires so much more nerve and judgment than riding to harriers, so I conclude that he who can ride to the former will experience no difficulty in following the latter. A hare, it is well known, runs in circles; or, in other words, she will rarely go to any great distance from the place where she was found; and on this account, those who are timid, or not fond of hard riding, may partake of the diversion of hare hunting without any great exertion; but this system of diversion is not suited to the taste of a true or keen sportsman; and he that would enjoy the sport even of hare hunting in perfection must ride hard, and should ride well also. If a sportsman ride well up to harriers, he then makes the most of this species of diversion, and assimilates it to the pursuit of the fox as near as the nature of the business will allow; but, inasmuch as harriers uniformly puzzle more than fox-hounds; and as from the very manner of running and turns of the hare, the dogs are frequently coming to trifling checks at least, so, consequently, the sportsman finds little difficulty in keeping well with harriers. On the contrary, the fox, when found, makes away for some certain point; and although he seldom crosses the middle of a field, but skulks along the sides of the hedges, yet his course is comparatively straight; and it requires all the exertions of the hounds, and consequently of the horses, to keep near him. Here too again, the old and the modern system of the chase appear strikingly in opposition to each other. By the former method, the fox was run down; by the latter, the hounds run up to him. The old English fox-hound was slow in the pursuit, but possessed such exquisite sense of smell, that he could follow his game after a considerable time had elapsed:—he might be said in fact, never to be off the scent; and, possessing as he did, invincible perseverance, he ultimately succeeded in his object—he run down or tired out the fox. The modern fox-hound is all dash and spirit; he requires much assistance from the huntsman, on account of the inferiority of his sense of smell: but if he can be kept on the line of the fox, his speed

is so great that the business is generally finished in one fourth of the time which it formerly occupied: *he runs up to his fox.*

Here I must repeat the observation—“*It is the pace that kills.*”—When the fox hound was rendered so fleet, the effect upon the horse was very soon perceived; and welter weights discovered the necessity of having more than one out in the field at the same time; nor indeed is this practice confined to welter weights, since many hard riders, who can afford it, have adopted the same plan. I have been told that the present Earl of Sephton was the first who introduced the system I have just noticed; but of the correctness of this I am by no means certain: on the contrary, I am inclined to think that it was practised in the time of the celebrated Hugo Meynell, Esq. Some years after this gentleman's death, Lord Sephton became master of the Quorndon pack; and, being no feather on horseback, found it very pleasant, no doubt, to have a second (or perhaps a third) horse in reserve. But horses, calculated for his Lordship's weight, were not easily found; and for a horse which was able to carry him fifteen minutes up to the Quorndon hounds, he did not hesitate to give five hundred guineas; for one which could carry him up to them for twenty minutes, eight hundred guineas.

However, I am inclined to think, that one horse ought to be sufficient for one day's diversion; and, generally speaking, such will be found to be the case under ordinary circumstances; but, since the horse is expected to perform his part in a satisfactory manner, it behoves his rider to take care that he is properly treated, by which means his strength, and all his noble and generous qualities, can be used to the utmost advantage, and the horse sustain no injury by long-continued and extraordinary exertion. That the horse is as fond of the chase as the rider is evident, since his eye will be seen to sparkle with pleasure the moment he perceives the preparations for hunting. A horse, on his way to the place of meeting, will frequently manifest the pleasure he feels by a variety of antics; and when the hounds have been thrown into cover, and are trying for a fox, his impatience for the run is evinced by characteristic indications which are too clear and too expressive to be misunderstood. Nor under any other circumstances will a horse make the same desperate exertions, as in follow-

ing hounds. In the latter end of the season of 1825, I had been hunting for a short time with Sir H. Mainwaring's hounds; and, upon my return home, was mounted upon a mare, which, from having been much overworked, seemed scarcely able to go more than four or five miles an hour. I had something more than twenty miles to ride, and commenced my journey about nine o'clock in the morning. Whitley Gorse, the fixture for that day, for Sir H. Mainwaring's hounds, lay in my road, and as I proceeded, the hounds, with their attendant huntsman and whippers-in, overtook me. The mare perceived the approach of the hounds, before I was aware of the circumstance, and the first signal I received was her lifting up behind so high and so unlooked for, that I was thrown upon her neck. I accompanied the hounds to the cover, which was within a few score yards of the road, and they were no sooner thrown in than my mare manifested a degree of impatience which I had not expected to experience in her jaded state. In a few seconds, a fox was found:—he broke away in gallant style with the hounds at his brush, and my mare testified so strong an inclination to follow, that I indulged her. I was never better carried; and after a brilliant thing of one hour and five minutes, I witnessed the death of the fox. I mention this merely to shew what that generous creature, the horse, will perform under such an excitement as hunting.

Having noticed the impatience which the horse manifests immediately prior to the run, it follows, as a necessary consequence, that, if this impatience be not judiciously restrained and his powers properly used, he must be blown very early in the run. The fact is, the commencement of the run is the most difficult part of the business—it is that which puts the judgment and skill of the rider to the severest test; and the horse should be so managed as to prevent him from exhausting his strength in what may be called the first burst, and yet keeping him well with the hounds. Indeed, it appears to me that the horse goes much more pleasantly to himself as well as to his rider, when he has got what is called second wind; and the same remark is susceptible of a more extensive application. The fox gets second wind, the hounds get second wind, as well as the horse, and the run, which up to this period might be considered as an impetuous dash, becomes

steady, as it were, and every thing proceeds with more regularity. At the commencement of the run, however, young fiery spirits are often as impetuous as their steeds, and, to say nothing of distressing their horses unnecessarily, sometimes mar the sport by riding too forward, or amongst the hounds—perhaps before them. When the hounds have found, they should be suffered to go away with their fox, and get well settled to the scent, without the least interruption—(and yet how often have I witnessed the contrary, in defiance of the entreaties, prayers, and ultimately of the deep curses, of the huntsman).—Nor, indeed, after this period should they be ridden too near or pressed by the sportsman: there should always be a sufficient space between the pack and the sportsmen for the hounds to turn; and indeed, the sportsman may be said to be sufficiently near so long as he can distinctly observe the working of the hounds. As I have already observed, a horse should be restrained at the commencement of the run; but it is the judicious application of this restraint that renders it effective:—horses should not be pulled about as they frequently are by ignorant horsemen, since the remedy then becomes as bad, if not worse, than the disease; and for the proper management of the horse at this juncture, good hands will easily perform what nothing else can properly accomplish: the sympathetic sensibility of the hand may be said to give the rider a complete controul over the powers of his horse, and this excellence can never be more beneficially applied than during the first maddening impetuosity of the run:—and this, particularly, where the animal happens to be high spirited, or of a hot and fiery temperament. Horses of this disposition, like impetuous riders, are anxious to lead; and indeed, it must be admitted that they go more pleasantly when placed in the front rank; and therefore, when such an enviable situation can be obtained, it is advisable to occupy it. Unfortunately this taking the lead often produces injudicious, and indeed injurious, rivalry; inasmuch as sportsmen thus approach too near the hounds, force them beyond the scent perhaps, and create the most vexatious confusion.—It is no wonder that huntsmen are sometimes unable to restrain their temper within due bounds.

I have frequently witnessed instances, where the very free application of the double thong to the shoulders of the of-

fender would have given me the most unqualified pleasure. In the year 1824 (November) I met the Cheshire hounds at Shavington, the seat of Lord Kilmorey, and, amongst the assembled sportsmen, one in particular attracted my attention. He had not mounted "*a bit of a pink*," or those other characteristic habiliments which distinguish the fox hunter of the modern school: on the contrary, the very cut and fashion of a vulgar yeoman of the last century—enveloped a dense and weighty mass, not of inert matter, but of as genuine and blunt stupidity, as ever animated the human form. I was anxious to avoid the contact of this semi-barbarian, who seemed to pride himself (as such fellows frequently do) on a degree of impudent activity or forwardness, which was any thing rather than palatable. In defiance of all my precaution, this fellow nearly unhorsed me in passing along a narrow path in the first plantation we entered, and before a fox was found, or a hound had spoke. I consoled myself under the idea that when we went away, I should see no more of Bullstrodonius; but it unfortunately happened that we found a dodging fox: we experienced a variety of trifling checks in consequence, which let him in, and enabled him to ride among the hounds, and exhibit his presumptuous and ignorant arrogance in all possible forms:—how much I wished for Sir Bellingham Graham, or Mr. Osbaldeston!

Every person should, if possible, take his place and keep it; and after the bustle of the first five minutes (supposing the fox goes well away, every thing assumes a degree of regularity, of which before it was not susceptible; and such fellows, for instance, as the one above noticed, are shaken off.

I have already repeatedly observed, that "it is the pace which kills;" and so it certainly is; but this requires a little further elucidation, together with a notice of other circumstances, which demand the serious attention of the sportsman. On coming to a heavy and extensive fallow, it is much more advisable to creep along by the side of the hedge than to cross the field, as the ground is generally more firm near the fence; if the horse can place two of his feet (on one side, of course) upon the little bank or elevation, which remains untouched by the plough, it will be much less fatiguing to the horse than if he sunk considerably with all fours at every stroke. If, however, it

becomes indispensably necessary to cross a heavy fallow, the horse should be held well together, or if he even trots over, so much the better: a horse is naturally inclined to labour hard through very heavy or miry ground, and if left to himself would be completely blown and exhausted in a few minutes. Hence, if a horse be suffered to rip and tear over a heavy fallow, he will run into the next leap, or perhaps be so exhausted as to come to a stand; whereas, if the animal had been held well together, and have thus been compelled to occupy a few more seconds in the operation, he would come to the end within himself, and consequently in a state to proceed. Under the circumstance of a heavy fallow or any similar occurrence, if a horse loses a little ground in going slowly over it, he is better enabled to make play where the ground will admit of his so doing without unnecessary distress.

As a general rule, it may be observed that the horse should be allowed a little respiration on every possible occasion; that is, he should be suffered to remain stationary whenever opportunities occur; even if it be but for a few seconds, the horse will derive great benefit from it; and a run seldom takes place, where such opportunities do not present themselves. Further, when a horse is in any degree exhausted, he should either be turned round at his jumps (unless indeed they are very small) or be reined in for a few seconds, by which means he will be more likely to clear them.

Hence the sterling truth of that axiom, which I have already noticed, namely, that "it is the pace which kills," may be clearly perceived in more bearings than one. Generally speaking, for instance, to keep a horse at great speed not only soon exhausts him for the present, but its frequent repetition destroys him entirely:—a striking exemplification of which may be seen in the horses which run in the very fast coaches, to say nothing of hunters. So also, in going over heavy ground, if a horse be suffered to extend himself, the pace must kill him. At the same time, it may be justly observed, that the frequent occurrence of jumps is very distressing to a hunter; and hence Cheshire, Lancashire, and indeed all this part of England may be regarded as a very distressing country. The act of leaping or jumping requires more than ordinary exertion in the horse; and, of course, the extra exertion will be regulated

by the nature or extent, or both, of the jump.

Generally speaking, I would advise sportsmen to avoid, as much as possible, all jumps with stiff or unbending tops, since, however perfect a horse may be, mistakes, or *misfootings* may occur; and as an elastic or weak fence will give way to the weight of a horse, so I consider it preferable to a gate, style, rail, or wall. It is true, there are (particularly Irish horses) many horses very clever at jumping timber and walls; yet, for the reasons already stated, I should prefer the elastic fence, and only put the horse's abilities to the test in regard to the former, where it appeared absolutely necessary.

Walls, unless they are low, I cannot help considering as awkward jumps, though I am very well aware they are nothing thought of in the sister kingdom; the fact is, they are common occurrences: as walls constitute the principal part of the fences of Ireland, the horses are familiarized to them from the earliest periods of their existence, and hence become the best wall jumpers in the world:—a horse indeed is sure to excel in that species of leaping to which he has been the most accustomed. Brooks, when the banks are sound, are no serious obstacles, unless wider than the horse can cover; but the worst of brook jumping is, the banks are seldom to be depended on, and hence serious accidents sometimes result—to the horse at least, if not to the rider. If the bank happens to give way, on the side from which the horse is taking his spring, he is very liable to break his back or receive some serious or incurable injury. Sir Harry Goodricke (if my information be correct) thus lost one of the best hunters that was ever seen at Melton. He had been offered seven hundred guineas for him, and the horse, some little time afterwards, broke his back owing to the bank of a brook giving way, over which he was about to jump. If in crossing a brook, the sportsman can contrive to put his horse at it where the banks slope towards the water, he is more likely to get safe over; as, in such places, the banks are seldom undermined by the action of the water—the hollow banks are, of course, the most to be dreaded. In going at a brook, it is the most advisable to put the horse very smartly and vigorously at it; the same remark is equally applicable to a gate; and indeed any large and rasping leap.—In regard to gates, I honestly confess I am seldom disposed to jump one,

where I can conveniently open it; and there are few horses that will not, with a little practise, become very handy at opening gates.

In crossing a country, the sportsman should keep a look out forward: as soon as he is over one fence, he should cast his eye to the next, and direct his horse to the most convenient spot to get over, consistently with keeping his place.

As to the best mode of teaching a horse to leap, which is intended for hunting, I have little hesitation in asserting that the bar is of very little service. In the first instance, I should feel no objection to put a young horse over the bar, to teach him to bend his knees; but, it is in the fields where he must acquire a knowledge of his business; and on this account he should receive his instruction in the fields. His lessons, however, should never be unreasonably extended, or he will become disgusted; a horse seldom jumps willingly unless after hounds. When a young horse takes his exercise, he may be put over a few fences, and this perhaps is the best way of imparting the necessary instruction.

The ornamental airs of the manege have no connexion with the operations of hunting; on the contrary, they force the horse into unnatural positions, and must very much strain the sinews or tendons. A high drest horse cannot be fleet, nor indeed scarcely useful. This method of riding is considered as highly ornamental, and that is all that can be said of it.

As the opinions of experience are always valuable, particularly when they emanate from a sound understanding, and a well cultivated mind, so in the present instance, I will quote the observations of Mr. John Lockley, a veteran sportsman, the friend and companion of the justly celebrated Hugo Meynell, a man who had the most extensive and the best opportunities of forming a judgment upon the best method of riding to hounds:—the observations in question were put together at the earnest solicitation of a numerous circle of friends, of the first respectability, amongst whom they were circulated, but were not originally intended for general publication:—

“Anticipating a check, and making a judicious cast (when casting is necessary) is the most useful knowledge in hunting.”

“At a time when all the world run mad about fox hunting, I am surprised so few gentlemen have learned to enjoy it rationally: the fashion of the present day is

hard riding ; and, at night, when over the convivial board, their only pleasure seems to be in relating the exploits or disasters of their own or their friends' horses; not a word about the best or the worst hound in the pack : or any idea ever started to ascertain whether, by *system*, or by *accident*, they had continued to carry a scent twenty miles over a country, to kill a fox; and how so great an event has been achieved, few modern sportsmen can, with any degree of accuracy, relate.

"Many years ago I recollect a gentleman who kept ten horses in Leicestershire, and who had been riding near me often in a very fine run, in which two of the most beautiful and interesting things happened I ever remember to have seen, and to whom I remarked them when the run was over:—'Good God, Sir, (said he) I saw nothing of it!' This was a hard rider, who, from his own account, saw *nothing* while riding his horse as hard as he could go, and as near the tail of the hounds as he could possibly get; and how should he? for a man behind the hounds cannot be a judge of what is going on in front, and is the first person (by pressing upon them) to bring them to a check.

"A good sportsman will, as often as possible, ride parallel with the pack, not after them, unless, by short turns, he is obliged to do otherwise; by which means he can see every thing that is going on, and anticipate the probable cause of hounds coming to a fault : and I believe a good huntsman, and a minute observer, will, twice out of three times, discover the object in the line of the hounds that caused it, and, as soon as he suspects it, pull up his horse:—for instance, a church, a village, a farm house, a team at plough, men at work, sheep, and, above all, cattle, are the things most likely to impede the scent : (be it remembered, that the breath of one cow will distract hounds more than a hundred sheep :) when any of these objects present themselves in the face of the hounds, you may then anticipate a stop ; and by pulling up your horse, and observing which way the pack inclined before the check, you will be able (without casting) to hold them to the right or left accordingly.

"If casting is necessary, you should be directed by the pace, or degree of scent which you brought to the spot where the hounds threw it up; if you come quick, and your hounds are not blown (be sure to attend to that;) you may make a quick cast in the direction which the hounds were inclining, by forming a small circle

first, and a larger circle afterwards, if you are not successful ; but if the hounds are blown, you should invariably cast them very quietly and hold them back; for when hounds have run a long way hard, they lose their noses for want of wind, and run beyond the scent, especially if there is water in their view.

"In a fair country, and hounds in condition, it is my opinion, that if the above observations could be carried into effect, few foxes would escape. Patience is the best performer in the chase ! All hounds in these times are well enough bred, and all hounds have power enough (if judiciously directed) to kill their fox."

When the founder of the Quorndon establishment, the celebrated Hugo Meynell, Esq. had become grey in the service of fox hunting, he was in the habit of addressing mild expostulation to the fiery sparks who attended his hounds, and frequently remarked that he wished there had been no such word as *forward* in the English language, which sufficiently shews the coincidence of opinion on the subject of fox hunting between him and Mr. Lockley.

If we consider the preceding remarks as applicable to fox-hounds particularly, it will be necessary here to observe, that in riding to harriers still more caution is indispensably requisite, or the sport is utterly ruined. When a fox is the object of pursuit, the lane riders (and some of these generally attend the meetings of fox-hounds) when once renard has fairly gone away, have no opportunity of doing mischief, as the fox seldom returns or accommodates their mode of riding; but the case is different with harriers : hares seldom run far from home—they will frequently run along the lanes for a considerable distance, and thus afford the lane riders an opportunity (which they seldom fail to embrace) of not only riding too close to the hounds, but even into the middle of the pack, laming some of the dogs perhaps, and causing the greatest confusion. In the pursuit of the hare, checks should be constantly expected, and are indeed of never-failing occurrence; and, as in these cases she is generally behind the hounds, so a space sufficiently large for the hounds to cast themselves back, should always be left between the sportsmen and the dogs.

HORSE-SHOE is a plate of iron for the preservation of the foot. See **SHOEING**.

HORSE-RACING. See **TURF**, the.

HOUND A STAG. To hound a stag is to cast the dogs at him.

HOUNDS. These animals are objects of more than ordinary interest to the sportsman; and though there are at present hounds of all sizes, all forms, and all colours, little doubt can be entertained that these varieties have sprung from one original stock, namely, the talbot, or old English blood hound.

As far as an opinion can be formed on the subject, there is reason to believe, that the talbot was originally introduced into this country by the Normans; and perhaps it would be difficult, if not impossible,

to meet with a single specimen of the pure and uncontaminated stock from one end of the kingdom to the other. From what has been written on the subject, it would appear, that the dog in question was about seven or eight-and-twenty inches high, and of a very strong and muscular form: the face very wide across the forehead, nostrils large and expansive, with large, soft, flexible lips, large and long ears, and the head altogether of more than the ordinary size; with a voice awfully loud, deep, and sonorous.

The following is Somerville's description of this highly interesting animal:—

“—If the harmonious thunder of the field
Delight thy ravish'd ear, the deep-flewed hound
Breed up with care, strong, heavy, slow, but sure;
Whose ears down hanging from his thick round head
Shall sweep the morning dew, whose clanging voice
Awake the mountain echo in her cell,
And shake the forests: the bold Talbot kind,
Of these the prime as white as Alpine snows,
And great their use of old.”

Hence it will be seen that Somerville seems to think the pure talbot was “white as Alpine snows:” while others assert, that “one distinguishing trait of the purity of the breed is said to have consisted in the colour, which was uniformly and almost invariably a reddish tan, gradually darkening to the upper part, with a mixture of black upon the back becoming some shades lighter in reaching the lower parts and extremities.” Pennant, in his delineation of quadrupeds, mentions them as having a black spot over each eye. But all these opinions in regard to the colour of the talbot exhibit much more of fancy than philosophy; though, from very considerable observation and much inquiry, on the subject, we are inclined to believe, that though the talbot might vary in colour, yet the darker shades would be found most prevalent. We feel persuaded that the talbot in general was dark coloured, with red or tan spots over his

eyes, something similar to what may be seen in many of the deep-flewed southern hounds:—in fact, the southern hound would appear a smaller kind of talbot; and hence, for the purpose of forming an opinion, the reader cannot be referred to a better object of comparison. The singularly commanding appearance, and attracting aspect of this dog, when seriously surveyed, seems to convey a consciousness of his own superiority; the uncommonly intelligent eye, the massive and capacious nose, large and pendulous ears, his strength of form, and his deep loud voice, produce, very impressively, the idea of a superior animal.

Our immortal Shakespeare notices these dogs; and when it is considered that he was, at an early period of his life, a professed deer-stealer, it is highly probable he might have had many opportunities of observing hounds of the talbot kind, or something very similar: he says—

“My hounds are bred out of the Spartan kind,
So flewed, so sanded; and their heads are hung
With ears that sweep away the morning dew;
Crook-knee'd and dew-lapped, like Thessalian bulls.”

At all events, the great and distinguishing peculiarity of the talbot was his extraordinary olfactory organs, or powers of smell, by which he was enabled to carry on any scent to which he was trained with almost infallible certainty. It will easily

be perceived how this surprising faculty was derived, by referring to the article **FOX HUNTING**, where, in an extract from Johnson's *Shooter's Companion*, the matter is explained.

It has been remarked by a writer, that

on the divisional borders of England and Scotland, while those countries were waging war against each other, the principle of morality was, in a great degree, extinct, and private robberies were sanctioned as mere military excursions. What in war the leader seized by force of arms, his vassal stole under the covert of the night, and drove his prize in darkness far within his own district, or secured it in fastnesses from whence there was little or no chance of extrication. In instances of this kind the hound under description was of the utmost utility, in tracing either the thief or the articles which had been stolen. And while the then barbarous, inveterate, and unrelenting clans of the north, under petty chiefs, were perpetually engaged in civil broils, the vanquished, who fled from the sanguinary conflict, were often hunted from cave to cave by a dog of this description, and slaughtered in cold blood. In addition to this, it is mentioned by Bewick, in his work upon quadrupeds, that, at the period alluded to, there existed a law in Scotland, by which it was enacted, that whosoever obstructed a dog of this description in pursuit either of stolen goods, or the offender, would be deemed an accessory to the theft.

We are told that those dogs designed for one particular pursuit, and used merely as blood-hounds, were never brought into the chase with any pack for the promotion of sport with any species of game; but were preserved and supported (as a constable or bow-street officer of the pre-

sent day) for the purposes of pursuit and detection. But this is mere conjecture, as very little doubt can be entertained that they were used by the Normans, (with whom they were great favourites) in the sports of the field, and in the sports of the field alone. It is true, from their extraordinary powers of smell, they were afterwards employed for other purposes. The border marauders, just before mentioned, were unquestionably pursued by these dogs; and no doubt can be entertained that it was from observing the animal's surprising capacity for carrying on any particular scent that originated the idea of employing them for that purpose. In this species of employment, they had frequently to pursue their object through morasses and boggy grounds (of which those will have a good idea who have visited the moors) and thence acquired the appellation of *sleugh* (slough) hound, sometimes written *sluth* hound.

They were, a century or two ago, used in England for the purpose of pursuing deer-stealers; and an offender was regarded as certain to be taken the moment a blood-hound could be laid upon the scent.

There was a law in Scotland that whoever denied entrance to one of these dogs in pursuit of stolen goods should be deemed an accessory. This property of discovering the nightly prowler by the unerring accuracy of its scent is thus beautifully noticed by the poet of the chase:—

— Soon as the morn
Reveals his wrongs, with ghastly visage wan,
The plundered owner stands, and from his lips
A thousand thronging curses burst their way:
He calls his stout allies, and in a line
His faithful hounds he leads, then with a voice
That utters loud his rage, attentive cheers:
Soon the sagacious brute, his curling tail
Flourish'd in air, low bending, plies around
His busy nose, the streaming vapour snuffs
Inquisitive, nor leaves one turf untry'd,
Till, conscious of the recent stains, his heart
Beats quick; his snuffling nose, his active tail,
Attest his joy: then with deep op'ning mouth
That makes the welkin tremble, he proclaims
Th' audacious felon; foot by foot he marks
His winding way, while all the list'ning crowd
Applaud his reas'nings. O'er the watery ford,
Dry sandy heaths, and stony barren hills,
O'er beaten paths, with men and beasts distained,
Unerring he pursues, till at the cot
Arrived, and seizing by his guilty throat
The caitiff vile, redeems the captive prey:
So exquisitely delicate his sense!

In speaking of the pursuit of Robert Bruce by Edward I. an old manuscript says,

The king Edward with horn and hounds him sought,
With men on foot, thro' marshes, moss, and mire,
Thro' woods also and mountains where they fought.

To try the merit of a young blood-hound, a nobleman (says Mr. Boyle) caused one of his servants to walk to a town four miles off, and then to a market town three miles from thence. The dog, without seeing the man he was to pursue, followed him by the scent to the above mentioned places, notwithstanding the multitude of people going the same road, and of travellers that had occasion to cross it. When the hound came to the market town, he passed through the streets without noticing any of the people there, till he got to the house where the man he sought was, and there found him in an upper room.

The author of the Sportsman's Cabinet has fallen into a most egregious error in speaking of the blood-hound:—he says, "Having gone through every thing appertaining to this description of dogs in Britain, we naturally refer to the use made of them in other countries, *where the breed is still preserved*, and held in the highest estimation, more particularly at and near the Havannah, in the island of Cuba, from whence they were procured for the prosecution of the late Maroon war, which took place some years since in the island of Jamaica." Hence from this account it would appear, that the talbot or old English blood-hound, and the blood-hound of the West Indies, were the same breed of dogs precisely; whereas they differ from each other as much, or nearly so, as any two ramifications of the dog. The old English blood-hound we have already described; and it therefore only remains to observe, that the blood-hound of the West Indies is merely a very large and a very ferocious dog, with small ears, and altogether more like an enormous lurcher than any thing of the hound tribe. Dallas, in his account of the Maroon war, expressly states that these dogs were generally accompanied by smaller ones for the purpose of carrying on the scent, or following the foot of the negro, as the larger ones were frequently incapable of tracing the path of the object themselves. Besides, the very circumstance of the small ears of the West India dog shews at once the immeasurable distance to which he is removed from the talbot; and it is

also an incontestible indication of his very inferior organs of smell.

The author of the Rural Sports (Mr. Daniel) when speaking upon the subject, falls into a similar error; and indeed this as well as many other parts of the works of both these gentlemen, manifest the very superficial knowledge (and not unfrequently gross ignorance) which they possessed of those subjects upon which they have both professed to write.

We have remarked in the early part of this article, that a pure talbot is hardly to be met with: hounds, however, nearly approaching the talbot may be sometimes observed at the establishments of those who keep deer, which are retained, it seems, principally for the purpose of recovering a stag which happens to leap the park wall, or indeed for driving in the outlying deer. The Earl of Derby's first game-keeper, shewed the writer two of these dogs in the summer of 1824. Lord Anson has also several, if our information be correct, as well as Lord Howe at Gopsall; and others are no doubt to be met with.

It must not however be supposed, because these dogs were principally employed in following the footsteps of man, that they possessed any pre-disposition for this peculiar pursuit; on the contrary, they would equally follow the scent of fox, deer, or any other animal, or indeed any particular scent to which they were trained; and the reason no doubt why they were selected for the purpose just mentioned was owing to their superior nose, which enabled them to trace the original scent upon which they were laid, through every possible winding and intricacy.

The stag-hound may be regarded as the first remove from the blood-hound—we mean the stag-hound of ancient days; for in some of the stag hunting establishments of the present day, what might be justly regarded as fox-hounds are employed instead of the old fashioned and heavier stag-hound; as a case in point, we may instance those of the Earl of Derby.

Stag-hounds are rarely kept, and the sport but little known in many parts of the kingdom: those of the most celebrity are the royal establishment upon Ascot

Heath, in Windsor Forest, and the Earl of Derby's, at the Oaks in Surrey. There are stag-hounds kept in other parts of the kingdom, but they are of minor importance.

Beckford, whose admirable Letters on Hunting, have rendered his memory immortal, seems not to have possessed a clear idea of the nature of hounds; as he remarks, that, could the fox-hound distinguish the hunted fox as the stag-hound does the blown deer, it would then be perfect. Now, the reason why the stag-hound could discover the blown deer from the herd was owing to the superiority of his olfactory organs. He was the first remove from the talbot; while the fox-hound was the fifth or sixth; and, in the latter, speed has been gained at the expense of nose; or, at least in acquiring that speed for which the fox-hound is distinguished, the preservation of acute olfactory organs has not been sufficiently attended to—in fact, it has not hitherto been sufficiently understood. It is necessary to observe, that Beckford's remarks upon the subject under consideration, or at least his comparative observations, were made on the stag-hounds used formerly, with fox-hounds of his own times; for, as it has been already observed, the Earl of Derby pursues the stag with hounds very similar to fox-hounds, dogs, which, we hesitate not to state, from personal observation, could no more distinguish the blown deer from the herd than fox-hounds could the hunted fox. This object, to be attained, in either stag or fox hounds, must arise from the superiority or acuteness of the powers of smell; as it is not derived from the difference of the object of pursuit; and we are inclined to believe, that the stag-hounds which possessed the faculty of distinguishing the blown deer, would have distinguished the hunted fox (had they been trained to fox hunting) with as much ease at least, if not more.

The stag-hounds used by his late majesty George III. were large powerful hounds, larger than those used at present by the Earl of Derby; and a year or two back, there were stag-hounds in Devonshire which resembled those used for the purpose in ages past away; but probably by the time these observations meet the eye of the public, stag-hunting in Devonshire will have ceased altogether.

The fox-hound comes the next under consideration, not on account of his close alliance in blood to the stag-hound or tal-

bot, but from his size, as well as from the nature of the chase for which he is appropriated.

The modern fox-hounds are, for the most part, tall, bony, fleet dogs; as the attention of breeders has been directed to power, speed, and perseverance, the olfactory organs have been neglected; and hence in many of the fox hunting establishments of the present day, the hounds are not able to hunt unless under the most favourable circumstances; and even then, it will frequently be found, that the success of the chase depends upon two or three hounds (perhaps only one) whose heads happen to be larger than the rest; and whose powers of smell, in consequence, are much superior.

The writer recollects a hound in the pack of Mr. Hay, in the year 1824, when that gentleman hunted in Shropshire, named Gaoler, with a remarkably large head, and on that account he was deemed unhandsome; but this dog uniformly displayed his superior nose on all occasions whenever acuteness of smell was rendered necessary, and that too in the most striking manner.

We are perfectly aware that a heavy, slow hound is not well calculated for the pursuit of the fox, however exquisite his nose may be; since, if hounds have not sufficient speed to press their fox—if they cannot run well up to him—if, in fact, the fox be suffered to listen at his leisure to his pursuers, and regulate his pace accordingly, he will keep them going all day. Very few foxes would be killed by heavy slow hounds; and even foxes which happened to be run into by such dogs would be merely tired out, and not killed with that impassioned spirit, and in that style, which renders the fox chase so superior to all other sports of the field.

Hence it will easily be perceived, that the great desideratum would be to unite strength and persevering speed with exquisite olfactory organs; the chase of the fox would then be complete according to Beckford's notion, and a similar opinion, we think, must be entertained by every one who duly considers the subject. The assistance of the huntsman would be thus rendered much less necessary, the chase would become a more regular continuity, as it were, and a more uniform certainty would attend it. If, by an improvement in the powers of smell, the hound were rendered a shade slower, the chase would become more certain, and would, in all probability, be brought to a close equally



OLD ENGLISH HOUNDS.

as soon, in general, if not sooner, by such hounds being much less liable to check.

But the question is, whether exquisite olfactory organs might not be grafted upon the present speed of the fox-hound: we are of opinion that they might, by proper attention; and the case of the hound Glider, mentioned under the article *FOX HUNTING*, p. 315, forms a sort of presumptive proof that such a desirable object is susceptible of accomplishment.

The tone of the voice or cry of the hound, is another object of consideration. Nothing is more pleasing than the music of the pack; but to regulate the cry so as to produce that unison of sound—that complete harmony which we sometimes hear mentioned, that, in all probability, must be left for the hare hunter to accomplish; and it would appear that an excess of music was by no means consistent with uncommon speed, or at least with that degree of speed so essential in the pursuit of the fox. Even harriers, and those too tolerably deep-flewed, will occasionally run nearly mute. Instances of this sort have repeatedly fell under the observation of the writer, when the atmosphere has been very propitious, and the ground remarkably good for retaining the scent. The reason is clear—when dogs run at their utmost speed, they are not able to open loudly.

Of the persevering spirit of the fox-hound, the following are remarkable instances:—

Many years since a stag was hunted from Whinfield Park, in the county of Westmoreland, until by fatigue or accident the whole pack was thrown out, except two fox-hounds, bred by Lord Thanet, who continued the chase during the greatest part of the day. The stag returned to the park from whence he had been driven; and, as his last effort, leapt the wall, and died as soon as he had accomplished it. One of the hounds ran to the wall; but being unable to get over it, fell down and almost immediately expired: the other hound was found dead about half a mile from the park. The length of the chase is uncertain; but as they were seen at Redkirks, near Annan, in Scotland, distant by the post road about forty-six miles, it is conjectured that the circuitous course they took, could not make the distance ran less than *one hundred and twenty miles!*

A couple and a half of young fox-hounds having followed Colonel Pearson, who was on horseback, strayed into a

large cover by the road side, and presently found something which they very eagerly hunted. After trying for a long time to call them off, Colonel Pearson proceeded to Colchester, where business detained him some hours. Upon his return he still heard them in the cover, and found by some people at work by the side of it, that the dogs had continued hunting during his absence, and had driven a fox over the field in which the workmen were, backward and forward, several times. Colonel Pearson then encouraged them; and after hunting the fox a long time in the cover, he at last broke, and was killed after a run of some miles. The time that these three hounds were running was at least *seven hours*, and by far the greatest part of it they had no person to encourage them to persist.

Mr. George Baker's Romulus broke away singly with a fox, and killed him after a chase of *eighteen miles*.

Upon the 19th of February, 1783, a fox was unkennelled near Boroughbridge, in Yorkshire, at twenty-seven minutes past nine, and except half an hour taken up in bolting him from a rabbit burrow, the hounds had a continued run until fourteen minutes past five, when they killed. During the space of nearly eight hours' hard running, several horses died in the field, and many others were so hurt as never to be perfectly recovered.

It might be supposed from the extraordinary length of some of these runs, that the hounds had changed their fox; and we have already stated that the fox-hound does not possess sufficient acuteness in the powers of smell to discover the hunted fox from another—this must be left to the huntsmen.

The sagacity of a fox-hound, when Mr. Taylor and Mr. Smith had their hounds at Whinnick, in Northamptonshire, and used sometimes to go to Lutterworth, in Leicestershire, for a fortnight's hunting, would appear an exercise of a reasoning faculty beyond the power of mere instinct. A favourite hound was left in Northamptonshire, on account of not being quite sound. The first day's hunting from Lutterworth produced an extraordinary chase, in which the hounds and horses became so fatigued that it was deemed necessary to stop that night at Leicester. Upon their arrival the next day at Lutterworth, they were told that a hound (which answered the description of that left in Northamptonshire) came there soon after their going out the preceding

morning, and waited quietly till towards the evening, when he manifested symptoms of uneasiness, and in the morning had disappeared. It was concluded that, disappointed of finding his companions where he expected, the hound, whose name was Dancer, had returned to Whinick; but, to the surprise and concern of his masters, upon their returning home, they were informed, that the hound had come back from Leicestershire, staid one day at the kennel, and then left it. Every possible enquiry was made, and at length it was discovered that Dancer, upon not finding the pack at Lutterworth or Whinick, had proceeded into Warwickshire, to a Mr. Newsome's, where the hounds had been for a week some months before.

The speed of the fox-hound was clearly ascertained by the celebrated contest between the late Mr. Meynell, who so many years conducted the Quorndon establishment, and the late Mr. Barry, who had the direction of the Cheshire fox-hounds, the kennel of which was situated on the borders of Delamere Forest, in the county just mentioned.

A match was made for five hundred guineas for a race between Mr. Barry's Bluecap (four years old), and Wanton (three years old), against Mr. Meynell's Richmond, and a favourite bitch. After the match was made, the celebrated Will Crane was applied to, to train the hounds of Mr. Barry, and he objected to dogs that had been entered some seasons, and wished for young hounds, which would with more certainty be taught to run a drag; however, the hounds were sent to Rivenhall, in Essex, and as Crane suggested, at the first trials to induce them to run the drag, they took no notice; at length, by dragging a fox along the ground and then crossing the hounds upon the scent, and taking care to let them kill him, they became more handy to a drag, and had their exercise regularly three times a week upon Tiptree Heath; the ground chosen was turf, and the distance over which the drag was taken was from eight to ten miles. The training commenced the first of August, and continued until the 28th of September (the thirtieth the match was ran): their food was oatmeal and milk and sheep's trotters. Upon the 30th of September the drag was drawn (on account of running up the wind which happened to be brisk) from the Rubbing-house at Newmarket town end to the Rubbing-house at the starting post of the Beacon

Course; when the four hounds were laid on the scent. Mr. Barry's Bluecap came in first; Wanton (very close to Bluecap) second. Mr. Meynell's Richmond was beaten by upwards of one hundred yards, and the bitch never run in at all. The ground was crossed in a few seconds more than eight minutes. Three score horses started with the hounds. Cooper, Mr. Barry's huntsman, was the first up, but the mare that carried him was rode quite blind. There were only twelve horses up out of sixty; and Will Crane, who was mounted upon a king's plate horse, called *Rib*, was in the twelfth. The odds before running were seven to four in favour of Mr. Meynell, whose hounds, it was said, were fed during the time of training entirely with legs of mutton.

The late Colonel Thornton, so celebrated in the sporting world, produced unquestionably the finest and the fleetest fox-hounds of his time. Merkin, a bitch belonging to the Colonel, challenged to run any hound of her year five miles over Newmarket, giving 220 yards for 10,000 guineas. Merkin had run a trial of four miles, which distance she performed in seven minutes and half a second. The bitch was sold in 1795 for four hogsheds of claret, and the seller to have two couple of her whelps.

Madcap (belonging to the same person) at two years old challenged all England for five hundred guineas. Lounger, brother to Madcap, did the same at four years old. The challenge was accepted, and a bet made for two hundred guineas to run Mr. Meynell's Pillager. The parties were allowed by Colonel Thornton to start any other hound of Mr. Meynell's, and Lounger was to beat both; but, upon Lounger's being seen at Tattersall's by many of the first sportsmen, his bone and form were found to be so capital, that it was thought proper to pay forfeit, which was done, by presenting Colonel Thornton with a pair of gold couples.

Lounger was afterwards sent as a present to the late Duke of Northumberland, as a stallion hound. It is said his Grace's keenness after the sport exceeded that of most other fox hunters that ever lived. In one instance, after a very severe chase, he ordered the fox's head to be *devilled*, and ate a great part of it.

The merits of the Duke of Grafton's celebrated fox-hound Trouncer has been versified by Bloomfield:—

Poor faithful *Trouncer*! thou canst lead no more;
 All thy fatigues and all thy triumphs o'er!
 Triumphs of worth, whose long excelling fame
 Was still to follow true the hunted game;
 Beneath enormous oaks, Britannia's boast,
 In thick impenetrable covers lost:—
 When the warm pack in fault'ring silence stood
 Thine was the note that roused the list'ning wood;
 Rekindled every joy with tenfold force,
 Through all the mazes of the tainted course.
 Still foremost thou the dashing stream to cross,
 And tempt along the animated horse;
 Foremost o'er fen or level mead to pass,
 And sweep the show'ring dew-drops from the grass;
 Then, bright emerging from the mist below,
 To climb the woodland hill's exulting brow.
 Pride of thy race! with worth far less than thine,
 Full many human leaders daily shine!
 Each sportsman heard the tidings with a sigh,
 When Death's cold touch had stopt his tuneful cry;
 And though high deeds, and fair exalted praise,
 In memory liv'd and flow'd in rustic lays,
 Short was the strain of monumental woe—
 "Foxes, rejoice! here * buried lies your foe."

In a prefatory Essay which some time ago appeared to an edition of Somervile's *Chase*, we find the following remarks:—"The heightened expence of every article has much reduced the number of packs of fox-hounds, most of those now kept being supported by subscription, and the subscribers, being chiefly composed of young men of rank, too mercurial to remain in any one place, who are one day in St. James's and the next morning by the side of a fox cover an hundred miles distant; and who are led there by the certainty of meeting a number of their companions, not so much in the hazard of the day, as for the *hazard of the night*; who understand very little of what constitutes the beauties of the chase, and are perfectly indifferent, if they only go fast enough, whether a red-herring or a fox be the object of pursuit. Mr. Meynell once endeavoured to stop a young man by telling him "he was a mile before the hounds."—"Am I?" said the gentleman, "I really did not *know it*. Pray, Sir, can you give me the smallest idea where they

are?" This accident might very easily happen, since the above mentioned personages assemble only at the side of a cover, at twelve o'clock at noon, for a burst of fifteen minutes, to try a few light weights and full blood horses. Fox-hunting has now become a match of time, and the *race* might as well be run without hounds as with them.

He continues—With the former style of fox-hunting, the *old English Hunter*, which, taken for all in all, was unquestionably the best native horse of the country, is now no more to be seen; for in the whirl of a modern sportsman's brain, he is scarcely fit for a curricule.

Whether the new school of fox hunting be preferable, the writer pretends not to determine; but, speaking as a poet, if not as a sportsman, he asserts, the varieties of the chase are all gone by. How could any writer, as a fox hunter, describe that day break he never sees? How could any man, yawning in bed at eleven at noon, give us the following:—

"Hail! gentle dawn! mild blushing goddess, hail!
 Rejoiced I see thy purple mantle spread
 O'er half the skies. Gems pave thy radiant way,
 And orient pearls from every shrub depend."

In the opinion of the *old school* of fox hunters, the chase has certainly now become a system of slow coursing; for, having lost the cry of the hounds, without

* Inscribed on a stone in Euston Park wall.

having acquired the velocity of the greyhound, no compensation has been derived for all the grander beauties of fox hunting, and which was a species of chase peculiar to England alone. It is singular that while the greyhound has been improved in beauty, speed, and strength; while the art of shooting flying has been nearly brought to a certainty, the advances in hunting have been entirely retrograde; for while the animal, whose characteristics should be a good nose and good bottom, has been so increased in speed as nearly to run by view, and instead of that cry, which is to make the welkin ring, his velocity obliges him to run mute; while at the same time the race horse supplies the place of the old English hunter, and from this circumstance the price of a horse, capable of carrying weight to keep up with these speedy hounds, is advanced from forty guineas to three hundred—may it not fairly be asked, whether all these costly changes are any improvements in the system? or, have we not, by these innovations, forgotten what hunting is? If killing foxes be any proof, the owner of the celebrated horse Matchem, who rode *twenty stone*, and that he might not be left in the back ground, his huntsman weighed *eighteen*, and the whipper-in *sixteen stone*: this hunting trio were certainly not *three feathers*, and they rode through as difficult a country as any in England, which was near Newcastle upon Tyne; yet, notwithstanding all these seeming drawbacks, few packs of hounds killed more foxes, although the foxes of that day ran as stout and as fleet as those of the present, and the country was more wooded; but had the present high blooded horses been then thought as essential to hunting as they are now, where in all Europe could have been found the man who could so easily have supplied himself with them as the owner of Matchem? In his time, a hunter was one thing and a racer another. In our days they are one and the same; and the qualification for our hunters' stakes consists in walking a race horse in his sheets into the same field where hounds are, and, in the phrase of the turf, letting him look at them, and from which he really becomes as much of a hunter as the man who rides him."

There is no modern sportsman, however, who will not easily perceive that the foregoing is a very jaundiced and illiberal view of the matter. Beyond all question, fox hunting has been improved perhaps beyond any other field sport; though with

respect to the hound, we are not prepared to deny, that in some cases, mere speed has been allowed to supersede all other considerations. It is some time since the above ill-natured remarks were put together; and what the author asserts in respect to the number of fox hunting establishments is completely at variance with the present period, as there never was a time, when England contained so many as at present, and many of them on a very extensive scale.—the Quorndon foxhounds (when Mr. Osbaldeston had the management) hunted every day in the week, the greater part of the season, Sundays only excepted.

Of *harriers* there is a very considerable variety—they may be said to be of all sorts and sizes; though, some years ago, the southern hound was generally considered as the only proper dog for the pursuit of the hare. The southern hounds are very deep-toned dogs, with thick lips, deep-flewed, and appear in every respect as like the talbot as possible, only smaller—like the talbot, the southern hound is remarkable for the excellence of his olfactory organs, and like him too, he possesses a very large head, whence he derives the faculty just mentioned. These hounds are slow in the pursuit—so much so indeed, that they have fallen into disuse. We are informed that they were formerly much in use in the neighbourhood of Manchester; and indeed something very nearly approaching the southern hound is still to be found in Lancashire; the hounds, for instance, in the possession of those celebrated characters, the Whitworth Doctors, are deep-flewed dogs, very much resembling the southern hound.

On the subject of harriers, after noticing the southern hound, the Rev. W. Daniel mentions as dogs calculated for the pursuit of the hare—"the fleet, sharp-nosed dog, ears narrow, deep-chested, with thin shoulders, shewing a quarter cross of the fox-hound." Now such jargon amounts to nothing—to talk of a quarter cross of the fox-hound, is very like the nonsense of a man who is profoundly ignorant of the subject upon which he affects to write; and I suppose what the Rev. Author intended to assert was, that in proportion as the harrier is removed from the southern hound his nose becomes sharp, his ears small, &c.

He also enumerates "the rough wire-haired hound, thick quartered, well hung, and not too much flesh on his shoulders." Here the same remarks will again apply,

as those we made in the last paragraph. The fact is, that there are rough wire-haired harriers, as well as rough wire-haired fox-hounds, bred no doubt from a cross with the water spaniel or the lurcher; and this is the amount of the difference or distinction.

The *beagle*, the smallest of the hound tribe, may be enumerated amongst harriers, as they are used for the pursuit of the hare; and indeed this is the only chase for which they are calculated. The beagle may be immediately distinguished, not so much from his diminutive size, as for the shortness of his legs, and the elongated form of his body; the beagle, in fact, may be justly considered as the dwarf-hound, though even beagles vary considerably in size as well as quality.

Beagles lately came much into fashion, and those of a very small size, sharp nosed and fleet, were preferred; but they are getting fast into disrepute from the circumstance of their not being able to hunt a cool scent; this has, however, arisen entirely from the manner in which they have been bred; as we have not the least doubt that beagles may be produced with as fine noses as the talbot.

In what manner the first cross was made from the talbot or blood-hound is not known; though it is tolerably evident it must have arisen from something of the greyhound or lurcher tribe, and the cross continued according to the judgment or fancy of the owner.

The late Colonel Thornton produced a pack of beagles so small that they were called lap-dog beagles, whose exploits were much celebrated through the medium of the diurnal and weekly press; and of the same kind were those of Colonel Hardy. This gentleman had a pack of these little dogs, consisting of ten or eleven couple, which were always carried to and from the field in a large pair of panniers, slung across a horse: small as they were, they would keep a hare at her shifts to escape them, and often worry her to death. But it was similar to that species of the chase, where a fox was hunted in Devonshire House Gardens: it might be endured as a novelty, but no one would wish to witness it a second time. The catastrophe attending this pack of hounds is laughable, and perhaps is a larceny *unique* in its attempt. A small barn was their allotted kennel, the door of which was one night broke open, and every hound, with the panniers, stolen; nor could the most diligent search discover

the least trace of the robbers or the stolen property.

"The north country beagle is nimble and vigorous (says the author of the *Rural Sports*, followed by the author of the *Sportsman's Cabinet*); he pursues the hare with impetuosity, gives her no time to double; and, if the scent lies high, will easily run down two brace before dinner. But it is only in a good day that these speedy hounds shew themselves; for, without the constant discipline of the whip, and perpetually hunting them down, it is impossible to make a good pack of them." We are at a loss to know what is meant by the *north country beagle*: the light, fleet, sharp-nosed harrier is often called the northern hound, in contradistinction, most probably, to the deep-flewed southern hound; and this would appear the true interpretation of the meaning of the two writers just mentioned. As to the light sharp-nosed dogs requiring the discipline of the whip, it may be taken for granted, as an invariable rule, that all light sharp-nosed dogs will be much more inclined to riot than deep-flewed dogs, on account of the inferiority of their noses, as, not being able to touch the scent, they are very apt to become unruly; and this in a more or less degree, according to the quality of their olfactory nerves.

Harriers may be bred in almost any form, or of almost any quality; and it is certainly advisable to breed them according to the country which they are intended to hunt. He that delights in a long chase, and to be up with the hounds all the time, will prefer the southern hound: their cry is a deep bass; and over greasy fallows, and in a bad scenting country, they will shew sport, where the lighter kind of harrier could not touch the scent. They pack well, from their equality of speed, and no sooner come to a fault than every nose is on the ground to recover the scent.

Where the country is bad, a remove or two from the southern hound will be preferable. It is difficult, however, to get fleet hounds to pack well: some are generally found to tail; but these tailing hounds, when the scent has been overran, are always the dogs to hit off the fault; and once more we assert, that these hounds will be found to have large heads.

In 1802, the Rev. R. W. Bamfylde sold his pack of harriers, consisting only of fifteen couple, for six hundred guineas.

Otter-hounds are but little seen, as otter hunting has of late years been but little in fashion. Any hounds may be trained

to hunt the otter; but the dogs generally used for the purpose are rough coated, bred most likely between the hound and the water spaniel; and, for tone or nose, may be bred precisely in the same manner as the harrier.

NAMES OF HOUNDS.

<i>A. dogs.</i>	Brawler	Clasher	<i>D. dogs.</i>	Essay	<i>G. dogs.</i>
Able	Brazen	Climbank	Damper		Gainer
Actor	Brilliant	Clinker	Danger	<i>F. dogs.</i>	Gallant
Adamant	Brusher	Combat	Dangerous	Factor	Galliard
Adjutant	Brutal	Combatant	Dapper	Factionous	Galloper
Agent	Burster	Comforter	Dapster	Fatal	Gameboy
Aider	Bustler	Comrade	Darter	Fearnought	Gamester
Aimwell		Comus	Dasher	Ferryman	Garrulous
Amorous	<i>B. bitches.</i>	Conflict	Dashwood	Fervent	General
Antic	Baneful	Conqueror	Daunter	Finder	Genius
Anxious	Bashful	Conquest	Dextrous	Firebrand	Gimcrack
Arbiter	Bawble	Constant	Disputant	Flagrant	Giant
Archer	Beauteous	Contest	Downright	Flasher	Glancer
Ardent	Beauty	Coroner	Dragon	Fleece'm	Glider
Ardor	Beldam	Cottager	Dreadnought	Fleecer	Glorious
Arrogant	Bellmaid	Counselloer	Driver	Flinger	Goblin
Arsenic	Blameless	Countryman	Duster	Flippant	Governor
Artful	Blithsome	Courteous		Flourisher	Grappler
Artist	Blowzy	Coxcomb	<i>D. bitches.</i>	Flyer	Grasper
Atlas	Bluebell	Craftsman	Dainty	Foamer	Griper
Atom	Bluemaids	Crasher	Daphne	Foiler	Growler
Auditor	Bonny	Critic	Darling	Foreman	Grumbler
Augur	Bonnybell	Critical	Dashaway	Foremost	Guider
Awful	Bonnylass	Crewner	Dauntless	Foresight	
	Boundless	Cruiser	Delicate	Forester	<i>G. bitches.</i>
<i>A. bitches</i>	Brevity	Crusty	Desperate	Forward	Galley
Accurate	Brimstone	Cryer	Destiny	Fulminant	Gambol
Active	Busy	Curfew	Dian	Furrier	Gamesome
Actress	Buxom	Currier	Diligent		Gaiety
Affable			Docile	<i>F. bitches.</i>	Gayly
Agile	<i>C. dogs.</i>	<i>C. bitches.</i>	Document	Faithful	Gaylass
Airy	Caitiff	Capable	Doubtful	Fairmaid	Ghastly
Amity	Capital	Captious	Doubtless	Fairplay	Giddy
Angry	Captain	Careless	Dreadful	Famous	Gladness
Animate	Captor	Careful	Dreadless	Fanciful	Gladsome
Artifice	Carol	Carnage	Dulcet	Fashion	Governess
Audible	Carver	Caution		Favorite	Graceful
	Caster	Cautious	<i>E. dogs.</i>	Fearless	Graceless
<i>B. dogs.</i>	Catcher	Charmer	Eager	Festive	Gracious
Bachelor	Catchpole	Chauntress	Earnest	Fickle	Grateful
Banger	Caviller	Cheerful	Effort	Fidget	Gravity
Baffler	Cerberus	Chirper	Elegant	Fireaway	Guileless
Barbarous	Challenger	Circe	Eminent	Firetail	Guilty
Bellman	Champion	Clarionet	Envious	Flighty	
Bender	Chanticleer	Clotilde	Envoy	Flourish	<i>H. dogs.</i>
Balster	Charon	Comely	Errant	Flurry	Hannibal
Bluecap	Chaser	Comical	Excellent	Forcible	Harbinger
Blueman	Chaunter	Courtesy		Fretful	Hardiman
Bluster	Chieftain	Crafty	<i>E. bitches.</i>	Friendly	Hardy
Boaster	Chimer	Crazy	Easy	Frisky	Harlequin
Boisterous	Chirper	Credible	Echo	Frolic	Harasser
Bonnyface	Choleric	Credulous	Ecstasy	Frolicsome	Havock
Bouncer	Claimant	Croney	Endless	Funnylass	Hazard
Bowler	Clamorous	Cruel	Energy	Furious	Headstrong
Bravo	Clanguor	Curious	Enmity	Fury	Hearty

H O U

Hector	Lusty	M. <i>bitches</i> .
Heedful		Madcap
Hercules	L. <i>bitches</i> .	Magic
Hero	Lacerate	Matchless
Highflyer	Laudable	Melody
Hopeful	Lavish	Merrylass
Hotspur	Lawless	Mindful
Hurtful	Lenity	Minion
	Levity	Miriam
	Liberty	Mischief
H. <i>bitches</i> .	Lightning	Modish
Hasty	Lightsome	Monody
Handsome	Likely	Music
Harlot	Lissome	
Harmony	Litigate	N. <i>dogs</i> .
Hazardous	Lively	Nervous
Headless	Lofty	Nestor
Helen	Lovely	Nettler
Heroine	Luckylass	Newsman
Hideous	Lunacy	Newsman
Honesty		Nimrod
Hostile		Noble

	M. <i>dogs</i> .	Nonsuch
I. <i>dogs</i> .	Manager	Novel
Jerker	Manful	Noxious
Jingler	Marmaduke	
Impetus	Marshall	N. <i>bitches</i> .
Jockey	Marksman	Narrative
Jolly	Marplot	Neatness
Jolly-boy	Marvellous	Needful
Jostler	Matchem	Negative
Jovial	Maxim	Nicety
Jubal	Maximus	Nimble
Judgment	Meanwell	Noisy
Jumper	Medler	Notable
	Menacer	Notice
I. <i>bitches</i> .	Mendall	Notion
Jealousy	Mender	Novelty
Industry	Mentor	Novice
Jollity	Mercury	
Joyful	Merlin	P. <i>dogs</i> .
Joyous	Merryboy	Pagan
	Merryman	Pageant

	Messmate	Paragon
L. <i>dogs</i> .	Methodist	Paramount
Labourer	Mighty	Partner
Larum	Militant	Partyman
Lasher	Minikin	Peeler
Launcher	Miscreant	Penetrant
Leader	Mittimus	Perfect
Leveller	Monarch	Perilous
Liberal	Monitor	Pertinent
Libertine	Motely	Petulant
Lictor	Mounter	Phœbus
Lifter	Mover	Piercer
Lightfoot	Mungo	Pilgrim
Linguist	Musical	Pillager
Listener	Mutinous	Pilot
Lounger	Mutterer	Pincher
Lucifer	Myrmidon	Piper
Lunatic		Playful
Lunger		Plodder
Lurker		

H O U

Plunder	Restive	Screamer
Politic	Reveller	Screecher
Potent	Rifler	Scuffer
Prater	Rigid	Searcher
Prattler	Rigour	Settler
Premier	Ringwood	Sharper
President	Rioter	Shifter
Presto	Riskier	Signal
Prevalent	Rockwood	Singer
Primrose	Romper	Singwell
Principal	Rouser	Skirmish
Prodigal	Router	Smoker
Prowler	Rover	Social
Prompter	Rudesby	Solomon
Prophet	Ruffian	Solon
Prosper	Ruffler	Songster
Prosperous	Ruler	Sonorous
Pryer	Rummager	Soundwell

P. <i>bitches</i> .	Rumbler	Spanker
Passion	Rumour	Special
Pastime	Runner	Specimen
Patience	Rural	Spinner
Phoenix	Rusker	Splendor
Phrenetic	Rustic	Splenetic

Phrenzy	R. <i>bitches</i> .	Spokesman
Placid	Racket	Sportsman
Playful	Rally	Squabbler
Pleasant	Rantipole	Squeaker
Pliant	Rapid	Statesman
Positive	Rapine	Steady
Precious	Rapture	Stickler
Prettylass	Rarity	Stringer
Previous	Rashness	Stormer
Priestess	Rattle	Stranger
Probity	Reptile	Stripling
Prudence	Resolute	Striver

R. <i>dogs</i> .	Restless	Strivewell
Racer	Rhapsody	Stroker
Rager	Riddance	Stroller
Rallywood	Riot	Struggler
Rambler	Rival	Sturdy
Ramper	Roguish	Subtile
Rampant	Ruin	Succour
Rancour	Rummage	Supplier
Random	Rusty	Surly
Ranger	Ruthless	Swaggerer
Ransack		Sylvan

S. <i>dogs</i> .	Salient	S. <i>bitches</i> .
Sampl	Sampler	Sanguine
Sampson	Sampson	Sappho
Sanction	Sanction	Science
Sapient	Sapient	Scrupulous
Saucebox	Saucebox	Shrewdness
Saunter	Saunter	Skilful
Scalper	Scalper	Songstress
Scamper	Scamper	Specious
Schemer	Schemer	Speedy
Scourer	Scourer	Spiteful
Scramble	Scramble	Spitfire

H U M

Sportful	Topmost	Tyrant
Sportive	Topper	
Sportly	Torment	<i>T. bitches.</i>
Sprightly	Torrent	Tattle
Stately	Torturer	Telltale
Stoutness	Tosser	Tempest
Strenuous	Touchstone	Tentative
Strumpet	Tracer	Termagant
Surety	Tragic	Terminate
Sybil	Trampler	Terrible
Symphony	Transit	Testy
	Transport	Thankful
<i>T. dogs.</i>	Traveller	Thoughtful
Tackler	Trimbrush	Tidings
Talisman	Trimmer	Toilsome
Tamer	Triumph	Tractable
Tangent	Trojan	Tragedy
Tartar	Trouncer	Trespass
Tatler	Truant	Trifle
Taunter	Trueboy	Trivial
Teaser	Trueman	Trollop
Terror	Trudger	Troublesome
Thrasher	Trusty	Truelass
Threatener	Tryal	Truemaid
Thumper	Tryer	Tunable
Thunderer	Trywell	Tuneful
Thwacker	Tuner	
Thwarter	Turbulent	<i>V. dogs.</i>
Tickler	Twanger	Vagabond
Tomboy	Twig'em	Vagrant

H U N

Verify	Wisdom
Verity	Woodman
Vicious	Worker
Victory	Workman
Victrix	Worthy
Vigilance	Wrangler
Violent	Wrestler
Viperous	
Virulent	<i>W. bitches.</i>
Vitiate	Waggery
Vivid	Waggish
Vixen	Wagtail
Vocal	Wanton
Volatile	Warfare
Voluble	Warlike
	Waspish
<i>W. dogs</i>	Watchful
Wanderer	Wasteful
Warbler	Welcome
Warning	Welldone
Warrior	Whimsey
Warhoop	Whirligig
Wayward	Wildfire
Wellbred	Willing
Whipster	Wishful
Whynot	Wonderful
Wildair	Worry
Wildman	Wrathful
Wilful	Wreakful

HUMOURS. All chronic disorders in the horse, arising from an impure state of the blood, are with the inferior classes in general denominated "humours."

HUMBLES. The articles so called are some of the internal *trimmings* obtained in breaking up a deer, which are always a perquisite of the keeper.

HUNTER, THE. We now come to the horse used for hunting; he is pre-eminently entitled to our notice, whether considered as to his breeding, his importance, or the princely amusement in which his persevering and spirited exertions are called into action. It is very well known, particularly to those who follow the hare, the stag, or the more noble diversion of *fox hunting*, that a very considerable alteration has taken place in the animal used for following the hounds. For nearly, if not quite, a century, the hunter may be said to have been in a state of progressive improvement, as the kind of horse formerly used for the purpose is now scarcely to be met with, and, when seen, is no longer capable of pursuing the amusement already mentioned, owing to the increased speed with which it is at present conducted. As the hound was rendered more fleet, it became necessary to increase the progressive motion of the horse also, so that, in a smart run with a fox, the old English hunter would be completely lost in a few minutes.

It is a maxim with sportsmen of the new school, (and an excellent maxim it is) that in a hunter as much blood and bone as possible should be united—you may thus acquire perfection, and it can be accomplished in no other way. Yet the task is more difficult than a first, or super-



ficial, glance of the business might seem to indicate, as, an union, sufficiently strong, of the qualities in question, is not very often to be met with ; or, in other words, thorough-bred horses, and particularly those of the best blood, are seldom possessed of sufficient bone to render them pre-eminently calculated for the chase ; and I am free to confess, that the very best hunters that have ever fallen under my observation, have been remarkably well and very highly bred, but yet not absolutely thorough-bred.

I have heard it remarked, that small bone with large sinew or tendon, is the union which gives to the animal possessing it, superior powers of speed and endurance ; but such an assertion can never be the offspring of reason and reflection, since a formation of this kind is rarely, if ever, to be found ; and, were it to be met with, inasmuch as it would form a sort of preternatural union, it would weaken, rather than add to, the powers of the animal which possessed it. Bone is the fundamental principle of strength ; it is the substance to which the tendon is attached, (and by which, indeed, both it and also the muscle is supported ;) and therefore the bone and tendon will be found, for the most part, in just proportion. Where much bone is seen, much tendon will be found also ; and where it happens otherwise, I should consider it a malformation, as a circumstance no way desirable, and consequently not to be recommended.

It is a common practise to convert thorough-bred horses, which, on trial, prove too slow for racing, into hunters ; but they seldom prove first rates, and have seldom strength sufficient to carry a common-sized man. When a horse has been trained for the course, his action is rarely calculated for a hunter ; he goes too close to the ground (is too much of a daisy cutter) to get well over rough, uneven ground. Light thorough-bred horses, I am well aware, owing to their superior blood, will struggle with uncommon energy and spirit ; but, in defiance of breeding, the light leggy racer cannot get through a heavy country—his physical strength is not sufficient to enable him to accomplish it. In training the racer, the animal is thrown forward, and taught to go as near to the ground as possible, for the purpose of increasing his speed to the utmost possible degree. The hunter's action should be the reverse of this, in a great measure ; it should, in fact, be lofty : and as the racer is generally a leggy light animal, the hunter, on the contrary, should be as bulky and as short-legged as possible. And, after all, one trifling remove from full-blood, and one trifling remove only, will be found in general the best method of breeding superior hunters. If, however, unquestionable full-blood be regarded as indispensable to the perfection of the hunter, the object in view is much more likely to be attained by keeping the animal altogether from the racing stable, and not put him to great exertion till he has acquired sufficient strength—till he has attained his fifth year. I am of opinion that a horse which has been trained for the course seldom, if ever, becomes an accomplished jumper ; and, indeed, the observation is equally as applicable here as in a number of other instances, namely, that a horse, to be perfect at his business (whatever that may be) should be trained and kept to it, and to it only.

A notion obtains general currency, at least in some of the north western counties, that the Irish horses make the best hunters; and I must candidly confess, that I have seen many (and possessed some) excellent hunters which claimed an Irish nativity. But, since Irish horses are neither better bred, nor better formed, than English hunters, we must look for their superiority, if indeed they possess it, to some other cause than the natural quality of the animal; and, on examination, it will be found to arise from the fearless manner in which they are ridden. A horse to become, and to continue, a good hunter, must be boldly ridden; but I would have them, at the same time, judiciously ridden also: in the latter quality our neighbours of the Emerald Isle are, in all probability, a little deficient; and hence so many of the Irish hunters will be found to have sustained injury. Many Irish hunters annually find their way into England, particularly through the port of Liverpool, few of which are free from blemishes. They are often impetuous in the field, owing to the mode in which they have been trained; but soon become tractable by a different method of treatment.

Having already observed that horses go well in all forms, so it may be said of the subject of the present article, that good hunters are to be seen in all forms; but as there is a peculiar conformation of the animal which is esteemed, from well-founded experience, as superior to all others, it follows, of course, that such is the form to be recommended.

From the speedy, laborious, and long-continued exertion which a hunter is called upon to sustain, it is abundantly evident, that his form and figure should constitute the essence, if possible, of strength and speed; and therefore, after having met with an animal possessing a sufficient share of blood or breeding for the purpose, the next thing to be considered is his form as indicative of the requisite qualities.—A knowing dealer remarked to me, that, in the choice of a hunter, the first point to be examined was the hock, (he was shewing me a hunter he had for sale, remarkable for the size of the hocks,) as it was vain to expect any horse to make a good hunter, unless he possessed good hocks. This is all very well, and, beyond all question, a hunter cannot have a better recommendation than good hocks: there are, however, other points and circumstances to be considered; and, instead of the hock, I think it quite as well, like Old Buckle, to commence our observations at the fore feet. If there be such a malformation of the feet as to cause lameness, or to impede, in any way, the animal's motions:—if, for instance, he was what is called *tender* (having the navicular disease;) or foundered, all other qualities, however excellent, are rendered nugatory. It is true, a hunter, with tender fore feet, as he goes principally on soft ground, will perform a day's hunting very well; but then, if the day should be severe, which is very often the case with fox hounds, the exertion which the horse has undergone produces inflammation or fever in the feet, he cannot feed, on account of the pain which he endures, and will not be in a fit state to go out again for several weeks:—consequently, a horse with bad feet should be cautiously avoided.

H U N T E R

It is not, however, intended in the present article, to point out what may be termed the diseases of the horse, whether latent or otherwise, but to describe the form, proportions, and figure of the animal, in such a manner, and in language so plain, as to enable the uninitiated to form a judgment for themselves; and as the diseases and local defects will appear specifically under the proper distinct heads, we shall continue the immediate and legitimate subject of the present article.

As strength is so essential an ingredient in the composition of the hunter, it must be evident that a small or little horse cannot be well calculated for the purpose: and yet there is a medium to be observed, and the extremes should be avoided. As a little horse cannot possess sufficient power, so it may be justly observed, in the phraseology of the school, that an overgrown beast will “*tire himself—his own weight will kill him.*” Judging, from considerable experience, and an extensive field of observation, I have little hesitation in observing, that a hunter should not be much less than fifteen hands two inches high, nor much more than sixteen hands: this I should lay down as a general rule, subject to exceptions certainly, as will always be found the case. Great strength, as it has already been observed, is indispensable in the hunter; and although the requisite strength will generally be found in the height I have just mentioned, yet sometimes it happens that horses of extraordinary power are to be met with considerably under that standard. Of this I have seen many remarkable instances. The celebrated pony hunter, the property of Mr. Coke (nephew to Mr. Coke of Holkham) and well known a few years ago at Melton, was under fifteen hands, but nevertheless possessed extraordinary powers; his form, though handsome, might be said to be equally extraordinary; and as there can be no effect without a cause, so the animal in question, on examination, was found to possess such uncommon bulk that he was in reality as large, if not larger, than the generality of hunters.—A few years back, I saw a dark brown horse in the possession of a person named Harrop, who resided at Liverpool, scarcely fifteen hands high, but possessing uncommon power, and of course uncommon bulk. He was larger and more powerful than Mr. Coke’s pony hunter; both animals were handsome, but not so remarkable for beauty, abstractedly considered, as for that symmetrical union of parts as would seem to approach perfection as nearly as possible: as hunters they had no superiors. The dark brown horse just mentioned (called, I believe, Robin Put) passed from the hands of Harrop into those of one Powell, a dealer; Mason, the dealer, purchased him from Powell, when he passed into the hands of Sir H. Goodricke; and I believe was ultimately killed by some accident in Leicestershire.

A grey horse belonging to Sir John Kaye may be placed in the same class. He is not fifteen hands high, but an animal of such bone and conformation as would seem to indicate every thing which could be desired in a hunter: moreover, he is thorough-bred, and, to make use of a common phrase, possesses the strength of a wagon horse. He is the most deceptive horse which ever fell under my

observation. In these cases, it must be recollected, that, though the animals were considerably under what I consider the standard of a hunter, they were, nevertheless, what might justly be considered as large horses.

If we observe the principles of progressive motion, in reference at least to quadrupeds, and particularly to such animals as are remarkable for the celerity of their movements, we shall perceive that the fleetest of them are peculiarly calculated for speed by a combination of parts, which is truly surprising, almost, as it were, in a mechanical point of view. Animals of the deer kind are remarkable for swiftness, and their form is admirably calculated for the purpose: they are much lower before than behind; their fore legs are short in proportion to their hind legs; and their bodies so formed that the viscera are placed forward, thus leaving great scope for the free and extensive action of the hind legs, which, of course, are mainly instrumental in giving an increased impetus to the animal's progressive motion. Pursuing the same train of reasoning, let us next regard the greyhound, which offers a further and stronger confirmation of the hypothesis: the greyhound is smaller than the stag, but swifter, and this superior speed arises, beyond all question, from the superior combination of his form; and if those who feel sufficiently interested in the investigation, will take the trouble to examine, they will find that those greyhounds which have rendered themselves celebrated by outstripping competition (such as the celebrated Snowball, for instance;) have been equally remarkable for a low-dropping chest, an uncommon length of hind legs,* and commensurate space for their sweeping action. The most striking proof, however, of the correctness of this position remains to be stated:—I allude to the hare. This animal is the fleetest quadruped in nature, that is, when her size is taken into consideration. The hare is generally found to weigh from six or seven to ten or eleven pounds, though hares seldom reach the latter weight:—the hare is swifter than the stag, whose weight cannot be much less than ten times that of the hare:—she is as fleet, or nearly so, as the greyhound, which is four or five times larger! Whence, then, arises this extraordinary celerity of motion? We must look for the cause in the striking peculiarity of her conformation. Every person that has ever noticed a hare could not fail to have been struck with the great apparent disparity between the length of the fore and the hind legs; with her very low-dropping chest, the absence of heavy viscera at the posterior part of the abdomen, and the amazing breadth and strength of her loins. It will easily be perceived, that the peculiar structure of her legs enables her to cover a larger space in her stride than any other animal (speaking comparatively), while the uncommon strength resulting from her loins, thighs, and generally from the combination of her body, give her the power to repeat her amazing strides with incalculable rapidity.

In the purchase of a hunter, therefore, these principles, or this

* Similar remarks are applicable to such racers as have been remarkable for speed, and to Eclipse in particular.

hypothesis, should be kept in view. I do not mean to assert, that a horse is to be met with formed precisely in the same mould as any of the animals just enumerated, but the principle is precisely similar, and the same reasoning will apply in both cases. Beauty is a term which, in most cases, must be applied relatively; for instance, a horse may be very beautiful as a hunter, without impressing upon the mind the idea of a beautiful hack; and therefore the form of the horse which we are to consider under the present head, is that best calculated for following hounds. Having stated my notions upon the principles of speed, a quality essentially necessary in a hunter, I have further to remark, that, as a horse of this description has to traverse spaces where jumping as well as galloping becomes indispensably requisite, it will be advisable to look for an union of parts the best calculated for the combined object which we have in view. As it has already been shewn that speed mainly results from a peculiar formation of the hind quarters, so, on examination, it will be found that it requires more than ordinary strength in the same parts to enable a horse to distinguish himself as a jumper. In jumping,* the spring must arise altogether from the hind quarters; and therefore, in a hunter, I should not only look for strong hocks, but long muscular thighs, wide spread quarters and loins as strong as possible, moderately ribbed up; rather round, than narrow, in the barrel; back not too long; low-dropping chest; bony, and muscular in the arm; strong knee; short from the knee to the ground; strong declining shoulders, not too fine at the top; if the neck be well set in to the shoulders and finely formed, the head well set on and handsome, so much the better; they contribute much on the score of beauty, and cannot operate as a drawback on the goodness of the animal; a bold, full, clear eye; broad, rather than narrow, forehead; nostrils wide. Horses, whose shoulders taper very finely to the top, are apt to become foundered, though I have seen many excellent hunters with shoulders of this description. Having previously spoken of the feet, I need not repeat the remarks in this place.—Moreover, a hunter should stand over a considerable space.† It will frequently happen that a short backed horse will stand thus, owing to the sloping position of his shoulders, and his quarters being well set in:—horses of this formation are well calculated for the business. A leggy horse cannot be recommended for hunting. Observations on the quality of the eye, as they are of general application, have appeared under a distinct head. See EYE.

Colour I regard as a matter of indifference, since good horses are

* It is asserted by many persons, that the act of jumping (leaping, according to the phraseology of the old school;) is nothing more than an elongation of the gallop; or, in other words, that jumping is merely an extension of the gallop. I cannot agree exactly to this. In galloping, all the feet, I think, are not from the ground at the same time; but they are obviously so in jumping. The horse, also, presents very different appearances in the two positions.

† He should stand straight also, turn out his toes neither before nor behind. Good horses, it is true, are sometimes met with of this formation, but it never can be a recommendation.

to be found of all colours; and, as the old saying expresses very truly, "a good horse cannot be of a bad colour."—However, as far as relates to beauty of appearance in the field, a dapple-grey or golden bay is to be preferred.

A horse intended for a hunter, if put to very severe exertion at an early period of his life, is frequently ruined, or so far injured that no dependance can be placed on his future exertions. It causes founder, debility, and a train of evils which it is impossible to enumerate.—A horse will rarely become a perfect hunter before he is seven or eight years old; and with proper treatment, if his constitution be vigorous, he will generally be enabled to perform his business till he attains the age of sixteen, or perhaps twenty.

HUNTER, MANAGEMENT OF THE.
Some remarks respecting the management of the hunter have already appeared under the head "CONDITION;" but they are, in a great degree, of general application: we have therefore deemed it necessary to enter more particularly into the subject in this place.

On the treatment of the Hunter, both summer and winter; with miscellaneous observations.

The subject of summering the hunter has, of late years, occupied the attention of the sporting world in a more than ordinary degree: the old and general system of summering at grass has been vigorously opposed by a very active minority, who have endeavoured to prove, that summering the hunter in the stable is infinitely superior to the old method of summering him in the open air; and that, in fact, the latter is generally attended with the most disastrous consequences. But it would appear to me, that the advocates of the different systems, in the heat of argument, have entirely overlooked that which ought to constitute the fundamental principle of each—I allude to the constitution, or physical habit, of the horse,—a subject which it is highly necessary to bring under consideration.

Although the stable system is generally denominated the *new system*, it is not quite so modern as this term would seem to imply, since the sportsmen of the old school were divided in opinion on the same subject; or, at least, the grass system was called in question by a minority of them, much in the same way as it has been for the last few years by modern sportsmen. An author, whose notions on hunting appeared in the year 1733, thus speaks of the treatment of the hunter. "As to all matters of feeding, physicking, airing, &c. I refer you to the more

expert grooms, or the learned doctors of the hammer and pincers; but as my way of ordering my steeds is to consult use rather than ornament, I always keep them in the open air (unless the night after a hard chase); I allow them two or three acres of pasture to cool their bellies and stretch their limbs, with a warm hovel to shelter them from a storm; a rack and manger, with proper provisions, to keep them in heart; and a fresh spring of water in the same field to quench their thirst. I have known a gelding, with this regimen, to be sound, fresh, and in full vigour, after ten years of the hardest hunting; I dare promise him that shall try it, to find such an one as far beyond the fine clothed, thin skinned courser (*cæteris paribus*), as a rough ploughman is fitter for business than a soft handed beau." I quote this merely to shew the opinion of a sportsman of the last century, not as a system that I would recommend; as I am willing to suppose that, as most arts and sciences have been in a state of progressive improvement, the treatment of that noble quadruped, the horse, has not been forgotten in the general march of the mind.

The eloquent Beckford, whose "Thoughts on Hunting" made their appearance at a more recent period, thus expresses himself on the subject of summering the hunter:—"After a long and tiresome winter (says he) surely the horse deserves some repose. Let him then enjoy his short lived liberty; and as his feet are the parts which suffer most, turn him out into a soft pasture. Some there are who disapprove of grass, saying, that when a horse is in good order, the turning him out undoes it all again. It certainly does. Yet this, at the same time, I believe, that no horse can be fresh in his limbs, or will last long, without it. Can standing in a

hot stable do him any good? and can hard exercise, particularly in the summer, be of any advantage to him? Is it not soft ground, and long rest, that will best refresh his limbs, while the night air and morning dews will invigorate his body? Some never physic their hunters; only observing, when they first take them up from grass, to work them gently: some turn out their's all the year. It is not unusual for such as follow the latter method to physic their horses at grass; they then are taken up, well fed, and properly exercised, to get them into order: this done, they are turned out for a few hours every day when they are not ridden. The pasture should be dry, and should have little grass: there they will stretch their limbs, cool their bodies, and will take as much exercise as is necessary for them. I have often remarked, that, thus treated, they catch fewer colds, have the use of their limbs more freely, and are less liable to lameness than other horses. Another advantage attends this method, which, in the horses you ride yourself, you will allow to be very material:—your horse, when once he is in order, will require less strong exercise than grooms generally give their horses; and his mouth, in all probability, will not be the worse for it."

The Earl of Pembroke, in his "Military Equitation," observes, "Horses should be turned loose somewhere, or walked about every day when they do not work, particularly after hard exercise:—swelled legs, physic, &c. will be saved by these means, and many distempers avoided."—He further observes—"it is a matter of the greatest consequence, though few attend to it, to feed horses according to their work. When the work is hard, food should be in plenty; when it is otherwise, the food should be diminished immediately, the hay particularly."

These quotations are given to shew the opinions of men of sense and reflection, who had studied the subject at a period when it was not so well understood, nor had been so thoroughly investigated, as at present; and when the short, beautiful, glossy coat, so indispensable in the present day, was but little regarded. A horse which is exposed to a cold atmosphere will be rough in his coat; a considerable degree of warmth (to say nothing of good grooming and good feeding) being absolutely requisite to give the sleek silky coat now so highly, and so justly, esteemed.

In regard to the much-agitated question, *summering the hunter*, I am decidedly of opinion that what ought to constitute the leading principle, namely, the *constitution and state of the horse*, has not been sufficiently regarded in the discussion of the question; and therefore, upon due consideration of the subject, it will perhaps be found that the advocates on both sides have somewhat overstrained the point. The true Arabian horse, from whom we have, in a very great measure, derived our hunters, at least our modern hunters, is an animal whose constitution seems to require a very considerable degree of atmospheric warmth: to this he is constantly exposed in his own country, where he is remarkable for his beauty, his spirit, and vigorous perseverance; and therefore, I am of opinion, in the treatment of our hunters, we should keep this steadily in view.

If a horse be regularly hunted throughout the season, he must be fortunate indeed, if he do not receive many bangs and bruises about the feet; in fact, his legs and feet are what must necessarily suffer the most during his laborious occupation; and it is very fair to presume, that, at the end of the hunting season, he is something "worse for wear," is suffering from the bangs and bruises already noticed, as well perhaps as from the straining of the tendons, and other incidents to which the hunter is peculiarly liable: added to which, the animal has been highly fed, and throughout the season may be said to have been kept in a state of continual excitement. Now, the question is, which is the method, under such circumstances, to re-invigorate him, and restore his constitution to its wonted or requisite state? There are many persons, I am very well aware, who would prefer the stable to the field; but I am free to confess, that I am not one of those. Under the circumstances already set forth (and generally speaking, they will be found to apply to hunters) I would turn the horse into a dry, but not hard, pasture, where he might crop the early spring grass, which would cool his body, and thus allay the excitement under which his system had been kept for many previous months; while his feet and legs (perhaps in some degree inflamed) would derive every possible benefit from the coolness of the ground—advantages which he could not derive if kept in the stable.—In thus turning the horse out at an early period, I do not wish it to be understood

that I would suffer him to remain out during the night; on the contrary, I would have him housed till such time as the weather was sufficiently warm, and the season sufficiently advanced, so as to remove all doubt as to his sustaining any injury from remaining abroad, exposed to the cold air.

During the hunting season, the faculties and powers of the horse may be said to be kept constantly on the stretch; and consequently, at the end of that period, they must require relaxation; for which the stable system does not, in my opinion, appear well calculated.

And, in speaking of summering in the field, I must here observe, that, as at the early period of the summer, I would not allow the horse to remain out during the night, so, as the season advanced, the weather became hot, and flies troublesome, I would take him into the stable during the heat of the day.

If a horse happens to be very short in the neck, with long fore legs, the pasture in which he is placed, should not be a level flat; on the contrary, it should be hilly or undulated; or what an old sporting friend calls "a give and take pasture," as the horse will thus feed much easier.

When a horse happens to be tender in the fore feet, summering on a soft pasture cannot be otherwise than infinitely superior to summering in the stable. In fact, the feet of a horse are very apt to contract by standing in the stable:—if he is to be summered in the stable, some artificial precaution must be adopted to prevent the contraction; otherwise the circulation in the feet, from the heat and dryness of the stable, will be obstructed, and the hoof or heel will consequently contract.

Where a horse is tender before, the pasture should be as soft as possible; and many marshes are to be met with which are very well calculated to answer the end in question. I should be careful, however, to choose such marshes as were not remarkable for rich or luxuriant pasture; I would have the grass hard and scanty rather than otherwise, since I am inclined to think the reverse of this is apt to produce that unpleasant disease in the horse, emphatically known by the name of *roaring*.

In conversing upon this subject with that intelligent gentleman, Mr. Scarisbrick of Scarisbrick Hall, near Liverpool, in the early part of the year 1827, he observed that his paddocks, (four in number) upon which we were then walking,

some years before had been well manured, under the idea of increasing and rendering the pasture more luxuriant, since which, however, they had repeatedly produced roasters; which he attributed entirely to the circumstance just noticed, and, I make no doubt, justly.

Light, hard, bent grass is the best calculated for horses, and for hunters and all horses with any pretensions to breeding in particular. It is true, by turning a hunter out to grass, you lose his condition, and this is one of the principal arguments advanced against it, by the advocates of the stable system; but surely it is no difficult matter to take the horse up in time, so as to place upon him that firm elastic muscle so necessary in a hunter. And, indeed, if, while at grass, corn be given to the horse, his condition will suffer very little; but I do not think this necessary, since, if he be taken up two or three months before the hunting season, and properly fed, properly exercised, and properly groomed, he will be completely fit for his business; and, what is more, he will be, as it were, a new horse.

Where a hunter has done but little work, he will sustain no injury, perhaps, by being summered in the stable, supposing him to be perfectly sound; but his feet, nevertheless, should be particularly attended to, or they will be very likely, I think, to contract. However, if such a circumstance do not happen, I do not mean, for a moment, to deny that such a horse will come out at the commencement of the hunting season every way calculated for his work.

The beautiful bloom of a horse's coat may be better preserved in the stable than in the field; and from this and some other minor circumstances, perhaps, the advocates of the system of summering the hunter in the stable, hastily insisted upon the superiority without any qualification; but experience soon taught them that, in the stable, the feet of the horse, required more attention than they had at first suspected, and a clay house or shed was then mentioned; that is, a few cart loads of clay were to be placed under a shed, to be kept well moistened with water, and in this wet clay, the horse's feet were to be placed for several hours each day; and shortly afterwards an inclosure, allowing sufficient room for the horse to move about and exercise himself, was recommended; while, at the same time it was admitted, that green food, or soiling

in the stable, was indispensable. Now, what does all this amount to, but that it is a troublesome and expensive method of doing that which may be better accomplished by a run at grass in the manner I have already described.

It may be also very justly observed, that, in the treatment of the hunter, his constitution should, in the first instance, be duly considered; since, it will be found that some horses will do better in the stable than others, during the summer; and, in this the judgment of the owner, or of those in whom he confides, must decide, since it is impossible to lay down any precise rules without a previous knowledge of the identical cases.

I wish to be particularly understood, that, although I am an advocate for a run at grass, I would by no means recommend an unqualified summer's run. I would give the horse the early spring grass, if possible (as I have already observed), but I would not suffer him to remain out at night till the weather became sufficiently warm; when he should be sheltered during the heat of the day from his tormentors, the flies.

And, after all, upon a considerate view of the case, the two systems will be found to approximate each other, since, if the pasture be scanty, and corn be given at grass, the advantages of condition are preserved in a great degree; while, by the stable system, the use of the clay shed may, perhaps, preserve the feet from contraction. But I feel a perfect conviction, that, by the latter method, the constitutional vigour of the animal becomes much sooner exhausted; he may be said to experience a premature old age; or, in other words, he is much sooner worn out; since he requires much more medicine, and is kept, it may be said, in a constant state of excitement. When a horse is summered in the stable, regular exercise is, of course, absolutely necessary.

As a proof of the re-invigorating qualities of a run at grass, we have only to look at any battered and jaded horse, and particularly at such as are employed in stage coaches. When these, for instance, have been worked to a "stand still," as it is called, their legs and feet battered to pieces by the hard road, a few weeks' grass is the remedy, and perhaps the only remedy; after a few weeks, they come up again, "quite new horses," able to proceed with their work; and thus nature, in a short period, accomplishes that, which would be very tedious to bring about in

the stable with all the assistance of art, to say nothing of the much greater expense attending it: in many cases, the object could never be accomplished in the stable.

We have been told of late years, by the strenuous advocates of the stable system of summering the hunter, that grazing the horse for the summer is very apt to produce roaring; but this is one of those sweeping declarations that, to be properly understood, requires elucidation. If a hunter, after being kept in a very warm stable during the season, and highly fed upon hard meat, be improperly turned out, it is no matter of wonder if he should become a roarer: if the transition be sudden, the horse will take cold, and, if neglected, is very likely to come up a roarer. The animal should be prepared for so great a change by degrees, nor should he, in my opinion, be suffered to remain out during the night till he has been some weeks at grass, unless indeed the season be advanced and the weather warm. The fact is, that the grass system, like all other systems, is liable to abuse; and thus the glaring improprieties of the groom are placed to its account; though I feel perfectly convinced, that no danger of roaring from summering the hunter at grass is to be apprehended, provided the horse be properly prepared for the change.

A horse, which is intended to undergo the laborious exertion of the ensuing season's hunting, if summered at grass, should be taken up in good time; as, if he be suffered to remain out till the approach of cold weather, his coat will be apt to stare; nature will not fail to guard herself against the approaching change of the atmosphere by a longer, thicker, and consequently warmer coat; which, however well it may be calculated to protect the animal from the severities of our chilling climate, has a very unsightly appearance by the cover side, to say nothing of another serious inconvenience, after a hard day's hunting—I mean *drying*.

On coming up from grass, it is the general custom to put the horse through a course of physic; and in most cases this is practised without the least reference to the animal's constitution, at least in an individual point of view. Any person capable of reflection will easily perceive that horses, like human beings, vary very considerably in constitution, and consequently, either as it regards physic or food, or exercise, should be treated accordingly.

I am induced to suppose that some hunters, on being taken up from grass, require very little physic, though I am very well aware that it is the general practise to put the horse through a regular course of medicine. On speaking to an old sporting friend on this subject, (a very strenuous advocate for physic) he remarked, that such a plan could do no harm; that physic never hurts a horse; and therefore fortified himself under the idea that, though the horse might stand in no need of physic, yet, from the administration of it, nothing injurious could result: but this is a doctrine to which I cannot subscribe, and which, I am inclined to think, will not endure the test of reasonable investigation. It must be admitted that physic excites an unusual and indeed an unnatural action of the animal system; and therefore, if administered, when not called for, must be injurious; if often administered, under such circumstances, cannot fail to weaken and impair the animal organization—cannot fail, in fact, to induce premature decay.

If a horse, when taken up from grass, do not improve in his condition and appearance as he ought, he, most likely, is in want of physic; he may be plagued with worms, which, of course, it will be highly necessary to remove; and this purpose is best effected, according to the notion of some, by administering linseed oil; and I am inclined to be of this opinion, since this, as well as several other *vegetable* oils (and perhaps vegetable oils in general), are the very bane of the insect and worm tribes. However, as I never feel myself justified in attempting to administer remedies, where my knowledge must be very imperfect, so I must recommend the same system:—I might feel no hesitation in bleeding a horse, or giving a simple dose of physic to him; but where I had a remote suspicion of approaching danger, or did not understand the case, I would call in the assistance of a professional man, with the least possible delay. At the same time, I have to observe, that, though I should be thus ready to employ a veterinary surgeon, I would not trust so valuable an animal as a favourite horse to his entire controul, unless I had the utmost confidence in his skill. A veterinary surgeon should possess sound sense and also acute perception—such a man would form his practise upon the principles of reason and true philosophy—I should be inclined to place implicit confidence in such a person, and rest

satisfied, whatever might be the result.

As I am come to speak of the hunter on being taken up from grass, I must observe, that as I recommended turning him out by degrees, as it were, so, in taking him up, I would not have the rigid and regular stable discipline inflicted upon him immediately. This change, like the others, should be brought about by degrees. For instance, in the first place, the stable should be cool, his cloathing trifling, his corn less than the usual stable allowance (and, of course, increased by degrees), and his exercise gentle. These matters should proceed in judicious progression till the required condition is accomplished. The perfection of condition must be to get as much firm elastic muscle upon the horse as possible, devoid, however, entirely of fat, since even the smallest quantity of the latter must be a drawback upon the animal's powers of speed and endurance. Therefore, if, when I took the horse up from grass, I found that he went on well, I should proceed without much physic; but if his coat appeared *penny*, or he otherwise indicated imperfect health, I should deem physic indispensably necessary. I have already remarked that the horse is subject to worms; but it is a matter of doubt as to the manner in which these vermin are generated—a gentleman whose opinion respecting horses I very much value, supposes that the embryo of the worm is externally deposited, and makes its way into the stomach or intestines through the pores of the skin. See **WORMS**.

It frequently happens that the feet of hunters require more than ordinary attention in the stable. If it be necessary to stuff the feet of a hunter, tar and clay mixed, will be found, generally speaking, to answer the purpose; tar mixed with hog's lard is perhaps better in many cases; and crushed linseed mixed with water has been lately brought into use. Goodwin, in his excellent work on Shoeing, observes, (speaking of the hoof of the horse) "It is familiar to every person, who has paid attention to the nature of horn, that it readily absorbs water, and that a few hours' immersion softens and renders it pliant. When subject to the heat of stables and fermented litter, evaporation takes place so freely, that not only the little moisture which may have been absorbed during the day, when at exercise or work in wet weather, is quickly evaporated on returning into the stable, but also a great

portion of the moisture which has penetrated the hoof from within. Thus, if no means have been devised to counteract these effects, hoofs soon become hard and brittle. It is therefore an object of great moment to bring horses' feet, when in the stable, as near to a state of nature as can be accomplished without much inconvenience. For this purpose I recommend two pieces of Bath coating, or any other coarse cloth, cut to the precise form and size of the hoof, and stitched together with a leather lace at each end long enough to go once or twice round the foot. It should be made quite wet, and be tied round horses' feet when dressed and clean. I also fill their feet with crushed linseed, mixed with water, and made of the consistence of stiff mortar. I have found most advantage in using crushed linseed without any of the oil being taken out of it, as a foot stopping in preference to any other." Cow dung, though used for stopping, has a tendency, it is said, to destroy the texture of the frog.

Once a week, it is supposed, is sufficient for a horse to go out with foxhounds; but there are many horses that will come out more frequently, if judiciously ridden. Of course, the day the horse is intended for hunting, he should not receive his usual allowance of food: on the contrary, one small feed of corn only should be given him at an early period of the morning with a few gulps of water—no horse can go well on a full belly; at the same time, the stomach should not be absolutely empty. On returning home after the exertions of the chase, his treatment should be regulated by his state of exhaustion or otherwise. If the horse be what is called *over-marked* (rendered feeble by excessive fatigue) a dram of tartar emetic may be given with advantage, and it may be found necessary to bleed him. However, speaking generally, I would, as soon as the horse reached home, after a hard day's hunting, give him a warm mash, composed of linseed, bran, and oats; and on all occasions, (at least where the horse has undergone a hard day's work) should prefer getting something nourishing into his stomach, to rubbing him dry, &c. which operation I have often seen grooms compel their horses to undergo before they have allowed them to eat. Where a moist warm mash is given (and it should be ready to be put in the manger, if possible, as soon as the horse comes in) the horse will not require gruel, or indeed water till he is

perfectly dry and cool. On returning from hunting on ordinary occasions, having a few miles to ride home, the horse having become cool and dry, I have let him drink a few gulps of water at some stream or convenient place, as I passed along—and trotted on: this indeed is my general practise, unless the exertions of the day have been extraordinarily severe, and I have a considerable distance to ride, when I give him some oatmeal and lukewarm water at the first house where I can procure it. Some persons prefer *flour*, instead of oatmeal on such occasions, on account, as they say, of the purgative or scouring quality which the latter possesses:—On this very account I prefer it, since, beyond all question, the best results may frequently follow its administration to the horse under such circumstances, and particularly in preventing or counteracting any tendency to inflammation.

HUNTERS' STAKES, AND COCKTAIL RACING:—

We copy the following from that highly interesting little book, *BROWN'S TURF EXPOSITOR*.—Horses which appear as racers, and are understood not to be thorough-bred, are, in the common language of the turf, denominated *Cocktails*. They run for hunters' stakes, and also for what are called half-bred stakes; nor indeed are they debarred from running for regular plates, &c. for which, however, they seldom enter: though instances are not wanting where they have beaten acknowledged thorough-bred horses, and those of a fair description, or perhaps a little above the average of what may be called plate horses; as an instance, I give the following:—at Knutsford Races, 1827, *Miracle*, a cocktail, belonging to a man named Hudson, was entered for one of the plates. Three started, *Miracle*, *Orthodox*, and *Vesta*; the plate was won by *Miracle* after three well contested heats!—Yet *Miracle* raced under the description of a cocktail!

The fact is, a number (the greater part perhaps) of these cocktails are *thorough-bred horses*; and of all systems of swindling and fraud, there is none more contemptible and disgusting than cocktail racing. To say nothing of Tom Paine and several others, which have now disappeared, who, let me ask, could look for a moment at Brother to Hexgrave, The Tartar, Mr. Fry, Agnes, Judy Nicholson, and Sawney, and others, and suppose they were not thorough-bred? Let us look at the performances of the above-named

cocktails, and we shall be convinced that they are not only thorough-bred, but as well and almost as highly bred as possible. A real cocktail cannot bear the training even, which these horses have undergone; to say nothing of the powers of *continuation* which they have displayed, a characteristic so utterly inconsistent with the very nature of a horse with a taint in his pedigree: and indeed of which a real cocktail is absolutely incapable. If a real or genuine cocktail be put into training and treated the same way as a thorough-bred horse, he will, in a short time, refuse his corn, and consequently his training must cease. He is absolutely unable to endure the severe exercise to which thorough-bred horses are subjected, and refuses to feed. A cocktail can neither do the work nor feed like a thorough-bred horse.

Speaking upon the subject of cocktails with Mr. Pierse, the enlightened trainer, who resides at Belleisle, near Richmond, Yorkshire, he observed, that he had once a cocktail in his stable belonging to a gentleman of the name of Yates, who entertained a very favourable opinion of the capacity of his horse. The animal was high spirited and fretful, and the first time a lad was placed on his back for exercise, he ran away for the distance of some miles on the high road till he was stopped by a turnpike gate. However, he was taken to the ground and exercised several times, till he gave the usual symptoms of a mixture of base blood, viz. loss of appetite, and alarm at the sight of the moor where the exercise ground is situated: so great indeed was his terror of the latter, that it was found impossible, or at least unadvisable, to take him to it, or even to let him see it. What was to be done?—Mr. Yates, as I have already observed, regarded the horse as far above the common class of cocktails, and would have heard with much regret that he would not endure training. The best mode would be to bring him out in good condition to the first race, which, if short, he perhaps might win; and the system of training adopted was placing a lad on his back and exercising him round the stack yard, close to the stable. He was thus made to appear in tolerable condition. He was brought out at Lancaster, run for the half-bred stakes (which happened to be a short distance, for which he might be said to have good speed) and won. Mr. Yates was in raptures; but after some conversation with the elder Pierse, that gentleman was induced to sell him for

three hundred guineas, which were offered in consequence of his winning the stakes just mentioned, handsomely, having, very luckily, what may be called nothing to run against him. However, being placed in another trainer's hands, less acquainted with the nature of the business, and who attempted to train him in the regular way, he was never afterwards able to run. Mr. Pierse finished the story by remarking, that no consideration should ever induce him to train another cocktail!

A horse of this description can race only in a certain way; no true cocktail can maintain a long contest against a thorough-bred horse; he may go as fast perhaps for a short distance, but he cannot continue the struggle for any considerable length. Hence those conversant with the business can never be much mistaken respecting true cocktails. If the animal be a genuine, true-bred cocktail, and is forced to encounter long or repeated struggles, nature denies the power of performance:—*out comes the black mare!*—the taint in the pedigree is too manifest to be mistaken. But many of the cocktails of late years, and particularly those of the present day, have been able to train, to go from race to race, and run as often as any acknowledged thorough-bred horses in the kingdom; and have not only been remarkable for speed, but for uncommon powers of continuing the struggle. Let us look for a moment at Gossoon, Fitzjames, Miracle, and Tawpy; the last in particular possessed, in the greatest possible perfection, the most distinguishing characteristic of the purest blood, namely, extraordinary capacity for endurance. These four *cocktails* have left the turf; but they have been succeeded by half a dozen others, whose claims to purity of blood are equal, if not superior, to their predecessors, at least, if an opinion is to be formed from their performances.

A person unacquainted with the nature of cocktail racing might reasonably ask—how can it happen that thorough-bred horses are brought out as cocktails, when certificates of pedigree are rendered indispensably necessary for the purpose of qualifying them for the stakes in which they appear? In order to answer this question satisfactorily, a little prefatory examination, or rather elucidation, becomes requisite, that we may arrive at a complete exposition of the business. In the first place, let us just glance at the part of the kingdom whence these more

than suspicious cocktails emerge. It is generally from the north, or more geographically speaking, from the northern part of the north-western coast, and the business, in its earlier stages, is brought about in a manner, or upon a system, varying according to circumstances. Let it not be forgotten that the spot is well-selected for the purpose, and shews at once the perspicacious calculation and uncommon foresight of those who figure in these nefarious transactions. A horse and mare became necessary for the purpose:—indeed, two horses and two mares are often rendered necessary in order to accomplish the contemplated fraud as impenetrably as possible. The men who breed these suspicious cocktails are persons who can practically perform the necessary operations of the stable, and therefore on many occasions stand in need of no assistant who might bear witness of the sinister transactions. Ambo, once belonging to Sir W. Wynne, or rather to Sir W. Wynne's brother, became the property of several other persons, after the conclusion of his racing career; and, while in the hands of one of these people, he was kept for some time in a loose sort of old building, situated at a place in Cheshire, convenient for the purpose. The owner of Ambo had another stallion, with some pretensions to blood (something more than half-bred;) which covered publicly. He had a mare also suited to his purpose, thorough-bred, which he gave out had been put to the half-bred horse, but which in reality had been put to Ambo. But I never knew what became of the foal; as the fellow, (very suspicious, as such fellows generally are) contrived to get it completely away; and although I was never able to trace it, I have not the least doubt, it raced as a cocktail.—This circumstance took place not exactly in that part of the kingdom remarkable for producing suspicious cocktails, yet, that the position is correct may be easily perceived, if we consider, for a moment, whence came Tawpy, Brother to Hexgrave, Miracle, Mr. Fry, Sawney, Agnes, &c. &c.

The schemes put in practice by the breeders of these animals are various: sometimes, it is contrived to have two mares to bring forth as nearly at the same time as possible, and the foals are changed:—it is a very well and generally known fact, that a bitch will suckle strangers—a mare, it seems, with proper management will do the same. Sometimes

foals suddenly disappear—are given out as dead, and are brought on the course as cocktails, under a studiously prepared, but false, pedigree. The persons concerned in these transactions are men of a particular *caste*:—and, if I am not mistaken, the very man who introduced Tom Paine as a half-bred horse, is at this time the owner of a *first-rate cocktail*.—The manufacturing of pedigrees is an art or science in which also these men excel: it is true, the workmanship is clumsy, and always presents an awkward appearance; yet it passes. Indeed, a pedigree, regularly supported by a succession of oaths, if necessary, however false, is not easily disproved—in fact, the irrefragable proof is, for the most part, impossible, though in almost all these cases an unqualified conviction is indelibly impressed upon the mind of its gross and utter falsehood!

Then, again, the appearance of a horse is sometimes altered, and he is taken to a distant part of the country to run as a cocktail. A man, at present residing upon the north-western coast of the kingdom, aware of a fine thorough-bred horse having been brought into that part of the country—a horse too of uncommon power, and consequently able to carry weight, contrived to meet the owner of him prior to the covering season, *for the purpose of feeling his pulse*. The gentleman who had purchased and brought the horse into that part of the country was most superlatively ignorant of the art and mystery of manufacturing cocktails, and therefore when he met the proficient in the science, he had not the most distant idea of the object in view. After a few preliminary but indifferent observations, *Cocktail* (that name will serve to distinguish the *knowing one*;) said, “Your horse would win many of the heavy stakes in the kingdom.” The gentleman did not know that what are called *heavy stakes* are run for by horses understood not to be thorough-bred, but supposing that the carrying of a great weight was intended, very promptly replied—“I dare say he would, as he is one of the strongest horses in England.”—*Cocktail* immediately conceived that the owner of the horse understood the intended business, and would not hesitate to *come into it*; he therefore continued—“But we must make *him a pedigree*.” “There is not the least occasion for that (said the owner) the horse has an excellent pedigree.”—“O! but it won't do (said *Cocktail*); he must be made to appear

not thorough-bred." "That can't be, as the horse has raced, and is very well known." "Never mind that; I can easily procure him a *proper pedigree*; I could also get one of his legs painted, and a little more hair placed in his tail, and then no one will recognise him!" Here the conversation ended, and the business also; the owner turned away.

Whatever might have been the original intention of cocktail racing (and I have no doubt it was very laudable) it has become a regular and well-organized system of swindling and fraud. It behoves every gentleman and man of honour, connected with the turf, to discountenance it; and if stakes "*for horses not thorough-bred*" cannot be immediately expunged from every race list, a salutary check may easily be put upon it by weighting the winners in such a manner as could not fail to bring them to the proper level. Weight must and will always *tell*; and by this means an effectual *bridle* would be placed upon these nefarious cocktails at the commencement of their career. Even in regard to the age of these suspicious cocktails, that is often rendered a doubtful circumstance, as all the trickery and cunning of the men who own them, are put in practice to accomplish their purpose in this respect. From information which I have no reason to doubt, a cocktail from the north, which has repeatedly won during the present season (1829) has been running as a year younger than the correct age; added to this also, little doubt can exist of the animal being as thorough-bred as any racer in the kingdom. Moreover, to say nothing of the immediate and obvious turpitude of the system of cocktail racing, it is productive of continual and never-ending disputes.

HUNTING. See CHASE.

HUNTING CAP. Is a cap made of leather and covered with black velvet, sitting close to the head behind, and having a semi-circular peak before, for the protection of the face in case of falls as well as in passing through strong covers during the chase. In the old school, he who wore the hunting cap was termed a *Dasher*, under a supposition that the wearer would never swerve from any difficulty, or refuse any leap; but this supposition, however general at one period it might have been, is altogether absurd. Five-and-twenty years ago, hunting caps were in general use; and how they came to be superseded by the hat appears un-

accountable: certain it is, that nothing could be better adapted for the purpose than the cap; while the hat is very inconvenient in a variety of ways, to say nothing of the unsportsmanlike appearance which it gives to the person who wears it. The hat is continually liable to be knocked off by the branches of trees, and when the wind blows it is as troublesome a companion as can well be imagined. Many sportsmen, in order to remedy the inconvenience as far as possible, tie it to the button-hole or some part of their coat with a narrow black ribbon. Surely the hunting cap must shortly be restored.

HUNTING WHIP. The whip so called, is large and heavy, and is intended, of course, for the correction of the hounds. The hunting whip in use some years ago, had frequently a hammer and claw at the butt end of the handle, which, of late, has, in a great degree, been laid aside. At the butt end of the modern hunting whip, there is merely a hook of buck's horn or bone; and some of the younger sort of Meltonians appear in the field with merely the handle or stock of the whip, which, in the eye of a sportsman of even forty years of age, gives them a very inappropriate, and a very unsightly, appearance.

HUNTSMAN. The huntsman is a person whose business it is to superintend every department of a hunting establishment, as well as to hunt the hounds. As it is an office of considerable trust and responsibility, so it requires no inconsiderable share of ability to fulfil it in a proper manner. He should be possessed of a comprehensive mind, a clear head, and humane heart; and of an obliging disposition. He should be remarkable for sobriety, acute perception, personal fortitude, patience, and activity; have a good constitution, an excellent ear; and a sonorous voice.

"It is common enough with our young Squires (observes a writer of the old school) to take the first wide throated attendant who offers his service, and make him his huntsman, imagining the green coat will qualify him for his office; as some set up themselves for doctors with no other recommendation but a pair of large eyebrows, and a set of loud sounding polysyllables.

But as every block will not make a Mercury, much less is he fit for a huntsman who is not born with a natural craft and readiness of mind, and has not im-

proved those talents by long study, observation, and experience.

I once had the pleasure of a long conversation with a very ingenious learned gentleman, then seventy years old; having himself hunted with all sorts of dogs, and in most of the counties in England, he entertained me with a most delightful discourse on that subject; and upon my making him a compliment on his perfect knowledge in the art, 'Oh! Sir (says he) *the life of man is too short!*' This sage declaration was received as a jest by some of the company; but I have since found it a serious truth: I am an old hunter myself; the wiles of the hare have been all along the study of my leisure hours, and yet I am perfectly puzzled and outwitted by that subtle creature. When I think myself sure, she often puts some unexpected trick upon me; and hardly do I ever lose her in tolerable scenting weather, but I can afterwards discern it was the effect of some oversight, or want of provision for such and such a contingency. For the conquest of a hare does not depend only upon vigorous attacks or pursuits, but there are a hundred accidents to which the success of the field is obnoxious, and which ought always to be in the head of the huntsman, if he would come off with glory."

A huntsman (to harriers) must never forget that every hare has her particular play; that, however that play is occasioned or changed, according to the variation of wind and weather, the weight of the air, the nature of the ground, and the degrees of eagerness with which she is pursued. Nor is he to be unmindful of the numerous accidents she may meet with in her way, to turn her out of her course, to cover her flight, to quicken her speed, or to furnish her with an opportunity of new devices. It is not enough to have a general knowledge of these things before the game is started, but in the heat of action, when most tempted to be in raptures, he should calmly observe the alterations of the soil, the position of the wind, the time of the year, and no less notice with what speed she is driven, how far she is likely to keep on forward, or to turn short behind; whether she has not been met by passengers, frightened by curs, intercepted by sheep; whether an approaching storm, a rising wind, a sudden blaze of the sun, the going off of the frost, the repetition of foiled ground, the decay of her own strength, or any other

probable turn of affairs, has not abated or altered the scent.

There are other things which equally claim the huntsman's attention, such as the particular quality and character of each dog; whether the present leaders are not apt to overrun the scent; which are most inclined to stand upon the double; which are to be depended on in the high-way, on greasy fallows, &c. Nor must the hounds be followed so closely, when fresh and vigorous, as after they have run off their speed and mettle.

When the scent lies well, the huntsman should keep considerably behind the hounds. At such a time, especially if it be against the wind, it is impossible for the hare long to hold forward: on such occasions she is very apt to stop short by the way, and when all the hounds have passed, to steal back; and thus the chase is frequently lost: whereas, if the huntsman were not too forward, he might perhaps see her steal back, and be thus enabled to recover what would otherwise have been lost.

The preceding observations relate to the pursuit of the hare, the following are more general, and will of course explain themselves:—Mr. Beckford says, "I will endeavour to describe what a good huntsman should be. He should be young, strong, active, bold and enterprising; fond of the diversion and indefatigable in the pursuit of it: he should be sensible and good tempered: he ought to be sober and exact, civil and cleanly: he should be a good groom and an excellent horseman; his voice should be strong and clear; and he should have an eye so quick as to perceive which of his hounds carries the scent when all are running; and should have so excellent an ear as always to distinguish the foremost hounds when he does not see them. He should be quiet, patient, and without conceit.—Such are the excellencies which constitute a good huntsman. He should not, however, be too fond of displaying them till necessity calls them forth. He should let his hounds alone, while they *can hunt*; and he should have genius to assist them, *when they cannot*."

Although the qualifications of a huntsman, upon the great scale of universality, should be precisely the same, yet there is an infinite contrast in the various points of execution. No distinct difference of light and shade upon the canvass, no effect of the elements upon the human frame, can be productive of more opposite

sensations than the requisites necessary to form a proper distinction between the modes of hunting hare and fox; since the very means calculated for the promotion of the one, would, in a few minutes, prove the evident destruction of the other: from which it is natural to infer that a huntsman eminently qualified for *either* would never be likely to acquire celebrity for *both*; for, as the accustomed spirit, speed, and dashing impetuosity of the fox hunter would soon lose a hare, so the philosophic patience, and constitutional tardiness, of the hare hunter would never kill a fox.

Perhaps a man who has reached the meridian of life, or one who has even passed it, would be, generally speaking, better calculated for a huntsman to harriers than a person in the full vigour of youth: at all events, he should be quiet and patient; "for patience he should be a very grizzle; and the more quiet he is, the better." A huntsman to a pack of harriers should have infinite perseverance; as a hare should never be given up while it is possible to hunt her:—she is sure to stop, and therefore may always be recovered.

It is generally supposed that the scent of the fox is more powerful than that of the hare, and this in all probability is the case; but the general supposition does not stop here; on the contrary, the prevalent notion among sportsmen is, that the scent of the fox is also more volatile, or evaporates sooner, than the scent of the hare. But the truth of this position we very much doubt (see the article SCENT). Fox-hounds are fleet sharp-nosed dogs (or at least they are generally so) and go with great speed while they can keep near the fox; but their noses are by no means so good as the generality of harriers; and on this account they are seldom able to hunt if the fox passes even but a short period before them—hence in all probability has arisen the notion of which we have been speaking. Harriers will hunt a fox more eagerly than they will a hare; and the writer has little doubt, that as the scent of the fox is more powerful or stronger, so also will it remain as long as that of the hare: consequently the seeming difference arises, not so much from the unequal volatility of the scent of the hare and the fox, as from the difference of the olfactory organs of the dogs by which the animals are pursued. We have already remarked, that harriers will hunt a fox more eagerly than they will follow a hare, which arises, no doubt, from the circumstance of the

effluvium which constitutes scent, being more powerful, and more easily carried on, than that of their own chase; nor have we the least doubt that harriers will acknowledge, or challenge, the scent of a fox as long as they will that of a hare, if not longer. The reason why harriers are not able to kill a fox in good style arises from their want of power and speed: they are neither so large nor so strong as fox-hounds; and if hounds by which a fox is pursued are not able to hunt well up to him, the chase must necessarily be protracted, and the fox will generally escape. —Generally speaking, when foxes are killed by harriers they are merely hunted down; while fox-hounds run up to their game, and kill him in style.

In regard to the pursuit of the different objects of the chase, sportsmen assert that "the scent of the stag, the fox, and the hare, is so exceedingly different in the duration of each, that it requires a method proportionably different in the pursuit of either; all which is practically known to huntsmen, who have no alternative, but to render their endeavours applicable to the kind of chase they are destined to pursue. The scent of the fox is well known to be the most powerful, as well as the most volatile, of any; the scent of the stag is equally grateful to hounds, but is known to evaporate sooner than the scent of the hare." The remarks we have already made are equally applicable here, namely, that the difference arises rather from the noses of the dogs than the quality of the scent, though we have reason to believe the scent of the fox (as already observed) is not only more powerful, but more lasting also; the scent of the stag we regard as the next both in strength and durability; and as to the hare, the scent which she leaves is, in our opinion, neither so powerful, nor yet so lasting.

But each of these animals requires a different style in the pursuit. In the two first, clamorous exultation upon view is more customary and more in character, than in the latter. Stag or fox break away in an undaunted manner; seek safety in persevering speed; and consequently the hounds cannot be laid on or kept too close to them, to fox in particular. But the case is different in hare hunting; where a general silence should prevail; and where the endeavours of the pack should never be obstructed by the busy tongues of officious obtruders; and upon this well-founded position, that if they receive no assistance, they encounter no opposition.

Harriers, as well as their huntsmen, are by no means calculated for the pursuit of the fox.

When a hare is found, she cannot be permitted to go off too silently; her own extreme timidity frequently occasions her heading, and the pack are as repeatedly liable to overrun the scent. The huntsman, by not pressing too close upon the hounds himself, may perhaps influence the company to keep at a proper distance also; and when the hounds are left to a proper and free use of their faculties, they are by no means so likely to overrun the scent.

In the pursuit of the hare, Beckford says, that "hounds, through the whole chase, should be left almost entirely to themselves, and not be much hallooed: when the hare doubles, they should hunt through those doubles; nor is a hare hunted fairly, when hunted otherwise. They should follow her every step she takes, as well over greasy fallows, as through flocks of sheep; nor should they ever be cast, but when nothing can be done without it."

The case is very different in the pursuit of the fox; where the huntsman should go off with the leading hounds, and press them forward as much as possible while they are able to carry the scent. The moment the hounds come to a check, they should be suffered to make their own cast, and perhaps as long as they will try to recover the scent themselves, the huntsman had better not interfere; but the moment they come to a stand, is the moment for the huntsman to display his abilities, and that too without the least loss of time.

When a huntsman makes a cast, he should make it perfect one way before he tries another, as much time is lost by going backwards and forwards; and the huntsman should be quick in his motions. Some huntsmen, when a forward cast does not succeed, come slowly back again; they should return as fast as they can.

When hounds are at fault, and it is probable that the fox has headed back, the cast forward should be short and quick; the scent is then likely to be behind, and too obstinate a perseverance forward has been the loss of many foxes.

There are times when hounds should be helped, and at all times they must be kept forward: hounds will naturally tie on a cold scent, when stopped by sheep or other impediments; and when they are no longer able to get forward, will

oftentimes hunt the old scent back again, if they find that they can hunt no other. It is the judicious encouraging of hounds to hunt when they cannot run, and the preventing them from losing time by hunting too much when they might run, that distinguishes a good huntsman from a bad one. Hounds that have been well taught will cast forward to a hedge of their own accord; but this excellence can never be acquired but from proper instruction. To suffer a pack of fox-hounds to hunt through a flock of sheep when it is so easy to make a cast round them, is the height of absurdity—it is losing time to no purpose.

In chases and forests, where high fences are made to preserve the coppices, the huntsman should put only a few hounds over, enough to carry on the scent, and get forward with the rest—it is a proof that he knows his business.

A huntsman should take care where foxes are in plenty that he does not run the heel; as it frequently happens that hounds can run the wrong way of the scent better than they can the right, when one is up the wind and the other down.

Huntsmen uniformly try down the wind, before they try up—some indeed will not try up at all; and no doubt frequently lose the fox by their ill-timed obstinacy.

When a huntsman hears a halloo, and has five or six couple of hounds along with him, the pack not running, let him get forward with those which he has; when they are on the scent, the others will soon join them.

Sometimes a good kennel huntsman is met with; sometimes an active and judicious one in the field; some are clever at finding a fox; others are better after he is found; whilst perfection in a huntsman, like perfection in any thing else, is scarcely ever seen. The keeping hounds clean and healthy, and bringing them into the field in their fullest vigour, is the excellence of a good kennel huntsman: if, besides this, he makes his hounds both love and fear him; if he is active and presses them on while the scent is good, always aiming to keep as near the fox as he can; if, when his hounds are at fault, he makes his cast with judgment; if, added to this, he is patient and persevering, never giving up a fox whilst there is a chance of killing him; such a person may be regarded as an excellent huntsman.

"I have always thought a huntsman a

happy man (says Beckford); his office is pleasing, and at the same time flattering; we pay him for that which diverts him, and he is enriched by his greatest pleasure; nor is a general after a victory more proud, than a huntsman who returns with a fox's head.

"I have heard that a certain Duke, who allowed no vails to his servants, asked his huntsman what he generally made of his field money, and gave him what he stated instead of it. This went on very well for some time, till at last the huntsman requested an audience:—"Your Grace (said he) is very generous, and gives me more than ever I got from field money in my life; yet I come to beg a favour of your Grace—that you would let me take field money again; for I have not half the pleasure now in killing a fox that I had before."

Huntsmen, whilst their hounds are drawing, or are at fault, frequently make so much noise themselves that they can hear nothing else: they should always have an ear to a halloo. "I once (says Beckford) saw an extraordinary instance of it in my own huntsman, who was making so much noise with his hounds, which were then at fault, that a man hallooed a long time before he heard him: and when he did hear him, so little did he know whence the halloo came, that he rode a couple of miles the wrong way, and lost the fox."

A huntsman to a pack of fox-hounds, went out one morning so very drunk that he got off his horse in the midst of a thick cover, laid himself down and went to sleep:—he was lost: nobody knew what was become of him, and he was at last found in the situation just described. He had, however, great good luck on his side; for, at the very instant he was found, a fox was hallooed; upon which he mounted his horse, rode desperately, killed his fox handsomely, and was forgiven.

The following is related of a sulky huntsman:—Things did not go on to please him; he therefore alighted from his horse in the middle of a wood, and, as quietly as he could, collected his hounds about him: he then took an opportunity, when the coast was clear, to set off silently and by himself for another cover; however, his master, who knew his tricks, sent others after him to bring him back: they found him running a fox most merrily, and to his great astonishment they stopped the hounds and made him to go back along with them. This fellow had

been often very severely beaten, but was stubborn and sulky to the last.

It is not necessary to enter more at large on the qualifications or duties of a huntsman; as, in that case, we should be compelled to repeat what has already appeared under the articles *FOX HUNTING* and *HARE HUNTING*, to which we therefore refer the reader. We shall here introduce a slight notice of a huntsman, whose eccentricities and other qualities seem to merit particular notice.

Isaac Rogers, though better known in the West of England by the name of the Doctor, was born at Montecute in Somersetshire. When a lad, he was instructed in shoe making; but early evincing a fondness for horses and hounds, Mr. Philips, the grandfather of the present owner of Montecute House, took him from the cobbler's stall, and placed him as understrapper in the stables—a state much more congenial to the Doctor's taste; and he remained in the service of the family the remainder of his life—about sixty-two years.

At one period he was groom, after that postilion, and then he became whipper-in; and on the death of a then old huntsman, Amos, he was promoted to the rank of huntsman. One of his sons, named Jack, and who was a very good sportsman and rider, was appointed whipper-in and the other feeder.

The Doctor, when drawing Prince's Wood, one day, on some of the hounds challenging, was asked why he did not cheer them? "Because (said the Doctor) we have a good many young hounds out, and I am afraid it be nothing *but some small varment*." The Doctor, for some minutes more, sat in anxious expectation of hearing some of his old friends, when presently two or three of them began to give tongue; on which the Doctor began to open his pipes and exclaimed, "Hark to ould Bowler, Vengeance, and Warhoop! *Now the right bell have a tolled!*"

The hounds having in a fog, and on a very high scenting day, ran away from the whole field, it was not until an hour after that the Doctor got up to them, when he found them returning by themselves; on which the Doctor observed, that he verily believed they had killed their fox. Mr. Philips, who was present, said, "Doctor, you had better get off and smell their breath; you will soon find if they have killed their fox or not." The Doctor, imagining at the moment that his master was not in earnest, but meant it

as a joke, turned short round, and, with one of his arch looks, replied—"No, no, measter; that will never do—a pretty story would be carried up along into the New Forest next April, that the Doctor did not know when his hounds had killed their fox, without geeting of to smell to the breaths o'em."

One of the gentlemen of Mr. Philips's hunt overtook the Doctor with his pack one morning, on his road to Melbury, where they were to throw off, and remarking that the long chase the day before had rather tired him, the Doctor, in his blunt manner, quaintly replied, "If you be tired with a two hours' ding yesterday, what must I be then, for this be the seven-and-vortieith day vollying that I've hallied to a hound, save and except Sundays."

A gentleman who kept a noble pack of fox-hounds being once on a visit to his friend Mr. Philips of Montecute, on his leaving that place, he invited the Doctor to go and see his hounds, and taste the strong beer. As soon as hay-making was over, at which the Doctor played a very pretty pitchfork, he started to pay his promised visit, and on being shewn the hounds, the gentleman said, "Well, Doctor, how do yo like my hounds?"—"Why (said the Doctor) they be pictures to look at, but they bayn't half so scratched in the face as our ould measter's be down at Montecute."

Some gentlemen meeting the Doctor with the pack one morning going to cover, asked him where they were going? "*Why (says the Doctor) we be going to try if we can't tackle thick Whitfield fox that have a beat us vour times. I've drafted vourteen couple of sick rogues, that if he don't look pretty sharp, I count in about three quarters of an hour they will be for sucking his blood.*"

So thoroughly attentive was he, that if he ran a fox to ground, and suspected a gin might be set at night, or a fox dug, after taking care of his hounds, he would set off on a pony, although the distance might be ten or twelve miles, to ascertain if all was right.

The Doctor was all animation from the moment old Bowler, Warhoop, Warrior, Tidings, or Vengeance, or some other of his old favourites, had pushed him out of his kennel: his mind, from that instant, was never at rest until he had properly accounted for him. One day, after running a fox hard, and they had got him into a small coppice, where the hounds were scoring at him, and he, to escape them, began running short, and every moment skipping behind them—the Doctor, addressing himself to a Mr. B. said, "*Mr. B. its pretty well up with him—don't ye hear how angry ould Shark, the bandy legged tarrier, be with him?*"

Epitaph on Isaac Rogers, huntsman to the Rev. Wm. Philips, of Montecute, Somerset.

Now the Doctor is laid, and over his head
May the turf lie as light as a feather!
And if not very warm, it will do him no harm,
Who ne'er valued the wind, nor the weather.

He's no longer in view; but to give him his due,
Though not born nor bred for a college,
Death ne'er drove to the earth a man of more worth,
More science or practical knowledge.

Isaac Rogers his name; a huntsman, whose fame
From the Yeo to the Avon resounded:
At his musical voice, Clift Wood would rejoice,
Dev'rill Longwood its echo rebounded.

As in life's busy burst, he was never the first
To hit off a fault in a neighbour,
Now he's fairly stopt in, let us hope that he'll win
The brush of reward for his labour.

Seventy-four years of age.

Good temper is a most desirable quality in a huntsman, as circumstances fre-

quently occur where it is put to a very severe trial:—when, for instance, a fox is

found, imprudent sportsmen are apt to ride over the scent, as well as to head him back. If the cover be small, so that the fox cannot go away unseen, heading back may not perhaps be of very great consequence; but the case is frequently very different, and very vexatious; but to ride over the scent is, I think, more provoking. When a fox has just broke cover, and before the hounds have got settled to the scent, how often have I seen the scent ridden over! and that too in the most vexatious manner: it certainly is not to be wondered at, however it may be regretted, if, on such occasions, the huntsman should forget the respect due to his superiors. On the 7th of last January (1826) I met the hounds of Hugo Meynell, Esq. at Radborne, about three miles from the town of Derby. A fox was found in a cover called *the Pasture*: he was well viewed away; in fact, he went off in such a manner as to enable a number of thoughtless and highly reprehensible sportsmen to ride before the hounds—they rode over the scent: the hounds endeavoured to pick it out from among the horse's legs; but the country presenting no *formidable fences*, the mercurial spirits above alluded to were enabled to head the hounds repeatedly, so that they could not get settled to the scent; and we ultimately lost the fox! Could any thing be more provoking? A few weeks prior to this period, I met the York and Ainsty fox-hounds at Skelton Springs, near York. We found in Overton Wood, a cover of very considerable extent; which renard seemed very unwilling to leave. At length, he broke away, and faced the open country in the direction of Beningborough; but, at a short distance from the wood, he crossed a lane, where several secondary sportsmen were waiting; who rode over the scent in all directions: and though the pursuit was continued for more than half an hour, the hounds were unable to run well up to their fox, (owing, no doubt, to the circumstance just mentioned) and we of course lost him. However, Naylor, the huntsman, kept his temper; though he informed me, that, some time before this period, he had broken out into a great rage, in consequence of a gentleman, not merely riding over the scent, but also over the best hound in the pack, and killing it!

I have met with several huntsmen who possessed good sense, who were not altogether destitute of what is understood by

the word genius; but who, however, had received scarcely a common village education. The famous Dick Knight, who was huntsman to Lord Althorp, and who, with his favourite horse (*Contract*) is represented in a well-known series of engravings, was as illiterate as possible, but occasionally elicited something like strokes of genius. This man was a great favourite with his master; was a desperate rider; and one who excelled in low games at cards, in which he passed most of his leisure hours. The features of Dick Knight's face were by no means prepossessing; yet they were strongly marked, and very expressive. He is celebrated for several extraordinary feats, amongst which, his leap down the precipice, known by the name of Dick Knight's leap, was, perhaps, the most dangerous. Dick had repeatedly run a particular fox, which uniformly beat his hounds; this same fox became well known, and Knight always knew where to find him. Renard invariably made for and reached a cover, (*Cank Wood*) distant about ten miles, in defiance of every exertion made to kill him; and in this cover he uniformly eluded all further pursuit. Knight was bent on killing this fox, whose acknowledged game ought, however, to have insured him fair play; but Dick, chafed by the sneers of the sportsmen who attended his hounds, and finding it impossible to kill this fox in the ordinary manner, adopted the following mode in order to accomplish his purpose. He gave his whippers-in the requisite directions as to the manner in which they were to second his exertions; and, placing himself in a situation where he might be able to view away his old acquaintance, the hounds were thrown into cover, the fox found, and viewed off by Dick Knight. But Knight was not content with this; he had resolved to keep him company as long or as far as possible; he therefore went away with him, and kept him in sight for four or five miles; this was an exertion of which very few would have been capable; but it answered the purpose, (not a praiseworthy purpose certainly;) for, by this method the fox was so pressed and so blown, that he was unable to reach the place that had always afforded him secure protection: however, he made the most desperate efforts, and the hounds reached him only one mile from his place of safety!

Shaw, one of the most famous huntsmen of modern days, appeared to have

something like genius in his composition, though he was not able to write till he entered the service of the Duke of Rutland, when he was about thirty years of age. The first time I ever saw this man was with the the harriers of Lord Moira (Marquis of Hastings) about thirty-five years ago, to which he was huntsman, and it was the first season he had ever acted in that capacity. These harriers were afterwards replaced by fox-hounds, and Shaw continued to hunt them (several years) till they were sold by Lord Moira to Sir Henry Harper, of Caulk, Derbyshire. Shaw afterwards became huntsman to Sir Thomas Mostyn; and ultimately served the Duke of Rutland in that capacity; with both of whom he was a great favourite. He continued in the Duke's service for a series of years, until, in fact, he was afflicted with some disorder, which disabled him from fulfilling the duties of his office. He quitted the service of his Grace for some time, and returned again at the express desire of the latter; but he was still incapable of going through the fatigue necessarily attendant upon the office of huntsman, and he retired. Such, however, had been the kindness of his master, that Shaw had realized, not a splendid fortune, but sufficient to live respectably, and keep a couple of hunters. When Sir Bellingham Graham had the Pycheley hunt, Shaw was frequently out; he also visited other parts, and I believe resides at present in Northamptonshire.

Shaw was not only a favourite with the Duke, his master, but with those who attended his hounds. He was a good horseman, very active in the field, civil and respectful, and sometimes manifested what Beckford would call genius. Shaw

became a huntsman without proceeding through those probationary steps, which generally lead to the office:—he never officiated in the subordinate capacity of whipper-in.

I have seen several good huntsmen within the last score years; and I am of opinion that few packs of fox hounds were ever better managed in the field than the Quorndon, a few years ago, when Sebright was the huntsman, assisted by those two very active whippers-in, Richard Burton and Will Head.

Richards, who hunts the Badsworth, seems to understand his business; but, unfortunately for a huntsman, he cannot be called a *light weight*. He is, however, a good rider, and an active man in the field. In the year 1825, I visited the Badsworth; and had thus an opportunity of observing the motions of Richards: I proceeded to Lord Harewood's hunt, where the operations of George Payne (his Lordship's huntsman) formed a striking contrast to those of Richards. The hounds must, in a certain degree, take their tone and manner from the huntsman:—the Badsworth are quick and active; Lord Harewood's are more slow and more *philosophical*. There was one hound in particular, in Lord Harewood's pack, that struck my attention: I remarked to Payne, the huntsman, that I was much pleased with the hound in question:—"That hound, Sir, (said he) would hunt through York Minster."

HURLE OR WHIRLE BONE is situated in the central part of the hind-quarter, midway between the hip-bone and the gaskin, and is at present called the *round-bone*.

HYDROPHOBIA. See DISEASES OF DOGS.

I & J

JANUARY. The pursuit of the partridge and pheasant ceases at the end of this month; though wood-cocks, snipes, and wild-fowl still remain an object with the shooter.

The hare will afford good diversion either with greyhounds or harriers, as hares are very strong at this period of the year.—The buck and doe seek the company of each other, if the season be mild and open.

Foxes run very stoutly, and good sport with the hounds may be confidently anticipated, unless prevented by the severity

of the weather. The dog fox and vixen seek each other.

JARDON. A jardon was the name given to any callous enlargement on the outside of either hock, proceeding from blows, or by kicks from other horses; although they more frequently arise from sudden turns or twists in too short a compass, or being too violently thrown upon their haunches in the manege, or elsewhere. In slight affections, they are not always productive of pain or lameness; and if properly attended to upon their first appearance, are sometimes re-

duced and obliterated without any future ill effect. Powerful repellents, and strengthening embrocations, are the most efficacious applications. Blistering first, and firing afterwards, have been the usual practice. It is, however, certain they are, in general, too hastily adopted. Daily fomentations of hot vinegar, followed by a strong embrocation of extract of Saturn, and camphorated spirits, might probably prevent the necessity for either.

JAUNDICE. A disease in the horse, termed by farriers the *yellows*. Horses are frequently subject to this malady, but in them it is less liable to be complicated with other diseases than in men, and therefore, when early discovered, may, for the most part, be easily removed.

The signs of the jaundice in horses, are a dusky yellowness of the eyes; the inside of the mouth and lips, the tongue and bars of the roof of the mouth, look also yellow. But here we are to distinguish between the yellowness of the jaundice, and that yellowness of the mouth and eyes which sometimes happens to horses upon the crisis of an inflammatory fever, where the inflamed parts look yellow when the fever and inflammation are going off. When this happens after a fever, the horse generally comes to his appetite, and looks lively, and the fever leaves him, the yellowness also soon wears off. But, in the jaundice, the yellowness is one of the first symptoms, and generally appears in the beginning of the complaint. The horse is dull, and refuses all manner of food, and the fever begins slowly, yet both that and the yellowness soon increase and proceed together. In the decline of an inflammatory fever, a horse dungs and stales freely, and in a kindly manner. In the jaundice, his dung is often hard, dry, and of a pale yellow, or light pale green. The urine is commonly of a dark dirty brown colour, and, when it has settled sometime on the pavement, it looks red like blood. He also stales with some pain and difficulty; and, if the disease be not soon checked, all the symptoms will increase, and the horse soon grows delirious. In cases of jaundice the assistance of a skilful veterinarian should be called in.

IMPOSTHUME. An imposthume is that kind of inflammatory enlargement, or swelling, which terminates in the formation of matter, produced by an effort of nature to relieve herself from some offending morbidity under which she labours.

INCUBATION. A hen has scarcely sat on the egg twelve hours, when some lineaments of the head and body of the chicken appear. The heart may be seen to beat at the end of the second day; it has at that time somewhat of the form of a horse shoe, but no blood yet appears. At the end of two days the vesicles of blood are to be distinguished, the pulsation of which is very visible: one of them is the left ventricle, and the other the root of the great artery. At the end of the fiftieth hour, one auricle of the heart appears, and resembles a noose, folded down upon itself. The beating of the heart is first observed in the auricle and afterwards in the ventricle. At the end of seventy hours the wings are distinguishable; and on the head two bubbles are seen for the brain; one for the bill; and two others for the fore and hind part of the head. Towards the end of the fourth day, the two auricles, already visible, draw nearer to the heart than they did before. The liver appears towards the fifth day. At the expiration of one hundred and thirty-four hours, the first voluntary motion is observed; in seven hours more, the lungs and stomach become visible; and four hours after this, the intestines, the loins, and the upper jaw. At the hundred and forty-fourth hour, two ventricles are discerned, and two drops of blood, instead of the single one which was seen before. The seventh day, the brain begins to have some consistence. At the hundred and ninetieth hour of incubation, the bill opens, and the flesh appears in the breast; in four hours more, the breast bone is seen; and in six after this, the ribs appear, forming from the back; and the bill is plainly seen as well as the gall bladder. The bill becomes green at the end of two hundred and thirty-six hours; and if the chicken is taken out of its coverings, it evidently moves itself. The feathers begin to shoot out towards the two hundred and fortieth hour, and the skull becomes gristly. At the two hundred and sixty-fourth, the eyes appear. At the two hundred and eighty-eighth, the ribs are perfect. At the three hundred and thirty-first, the spleen draws near the stomach, and the lungs to the chest. At the end of three hundred and fifty-five hours, the bill frequently opens and shuts; and at the end of the eighteenth day, the first cry of the chicken is heard. It afterwards gets more strength and grows constantly, till at length it is enabled to set itself free from its confinement.

In the total of this process must be remarked, that every part appears at the appropriate time: if, for example, the liver is formed on the fifth day, it is founded on the preceding situation of the chicken, and on the changes which are to follow. No part of the body could possibly appear, either sooner or later, without the whole embryo suffering; and each of the limbs becomes visible at the proper moment. This ordination, so invariable in its effects, is manifestly the work of a supreme Being, whose creative powers must be still more sensibly acknowledged, when the manner in which the chicken is formed out of the parts which compose the egg is also considered: how astonishing it is that in this there should exist the principle of life: that all the parts of an animal's body should therein be concealed, and require nothing but heat to unfold and quicken them—that the formation of the bird should be so regular—that exactly at the same instant the same changes will take place in a great number of eggs—that the chicken, when hatched, is heavier than the egg was before. But even these are not all the wonders in the production of the bird from the egg (and this instance will serve to illustrate the whole feathered race); there are others, which, from our limited faculties, are altogether hidden from our research.

Hatching chickens by artificial heat, is a process that has been long known in Egypt: (it was successfully tried by Mr. Potter, in the isle of Ely, both with hens' and pheasants' eggs); but this is only now practised by the inhabitants of a single village called Berme, and by those who live in its immediate vicinity. About the beginning of autumn, these persons spread themselves all over the country, and each of them is ready to undertake the management of an oven. These ovens are of different sizes, capable of containing from forty to eighty thousand eggs; and the number of ovens, in different parts, was about three hundred and eighty. These were annually kept working for about six months; and as each brood takes up twenty one days in hatching, it is easy in every one of them to produce eight different broods of chickens in the year.

The ovens are of the most simple construction, consisting of only a low arched apartment of clay. Two rows of shelves are formed, and the eggs are placed so as not to touch each other.

They are slightly moved five or six times in every twenty-four hours. All possible care is to be taken to diffuse the heat equally throughout; and there is but one small aperture large enough to admit a man stooping. During the first eight days, the heat is rendered great; in the last eight, it is gradually diminished, till at length, when the young brood is ready to come forth, it is reduced almost to the state of the natural atmosphere. At the end of the first eight days, it is known which of the eggs will not be productive.

Every person who undertakes the care of an oven is under the obligation of delivering to his employer only two thirds of as many chickens as there have been eggs given to him; and he is a gainer by this bargain, as it always happens (except from some unexpected accident) that more than two thirds of the eggs produce birds. In order to make a calculation of the number of chickens thus hatched yearly in Egypt, it has been supposed that, upon an average of only two-thirds of the eggs being productive, and that each brood consists of at least thirty thousand chickens, the ovens, by this estimate, give life, annually, to about 92,600,000 of these animals.

M. de Reaumur introduced this advantageous mode of hatching eggs into France, and by a number of ingenious experiments, reduced the art to certain principles. He found that the degree of heat necessary for the production of all kinds of domestic fowls was the same, the only difference consisting in the time during which it ought to be communicated to the eggs: it will bring the canary bird to perfection in eleven or twelve days, while the turkey poult requires from twenty-four to twenty-eight. M. de Reaumur found that stoves heated by means of pipes from a baker's oven, or the furnace of glass houses, succeeded better than those made hot by layers of dung, the mode preferred in Egypt.—These should have their heat kept as nearly equal as possible, and the eggs should be frequently removed from the sides into the middle, in order that each may receive an equal portion of heat. After the eggs were hatched he had the offspring put into a kind of low boxes without bottoms, and lined with fur, the warmth of which supplied that of the hen, and in which the chickens could at any time take shelter. Till the chickens acquired some strength, these boxes were kept in a warm room; with safety they then could be exposed to

the open air in a court yard. The young seldom take any food the whole day after being hatched; then a few crumbs of bread are given for a day or two, after which time they begin to pick up insects and grain for themselves. That the trouble of attending them might be saved, M. de Reaumur taught capons to watch them in the same manner as hens, of which three or four were sufficient to take care of two hundred chickens.

From the incubation of eggs, Dr. Paley makes some highly interesting observations respecting animal instinct. He thus proceeds:—"I entertain no doubt but that a couple of sparrows hatched in an oven, and kept separate from the rest of their species, would proceed as other sparrows do in every office which related to the production and preservation of their brood." Assuming this fact, the thing is inexplicable upon any other hypothesis than that of an instinct impressed upon the constitution of the animal. For, in the first place, what should induce the female bird to prepare a nest before she lays her eggs? It is in vain to suppose her to be possessed of a faculty of reasoning; as no reasoning will reach the case. The fulness or distention which she might feel in a particular part of her body, from the growth and solidity of the egg within her, could not possibly inform her that she was about to produce something, which, when produced, was to be taken care of and preserved. Prior to experience there was nothing to lead to this inference or to this suspicion. The analogy was all against it; for in every other instance, what issued from the body was cast out and rejected. But, secondly, let us suppose the egg to be produced into day—how should birds know that their eggs contain their young? There is nothing either in the aspect, or in the internal composition of an egg, which could lead even the most daring imagination to a conjecture, that it was hereafter to turn out from under its shell, a living perfect bird. The form of the egg bears not the rudiments of a resemblance to that of the bird. Inspecting its contents, we find still less reason, if possible, to look for the result which actually takes place. If we should go so far as, from the appearance of order and distinction in the disposition of the liquid substances which we noticed in the egg, to guess that it might be designed for the abode and nutriment of an animal (which would be a very bold hypothesis) we should expect a tadpole dab-

bling in the slime, much rather than a dry, winged, feathered creature; a compound of parts and properties impossible to be used in a state of confinement in the egg, and bearing no conceivable relation, either in quality or material, to any thing observed in it. From the white of an egg, would any one look for the feathers of a goldfinch? or expect from a simple uniform mucilage the most complicated of all machines, the most diversified of all collections of substances? Nor would the process of incubation, for some time at least, lead us to suspect the event. Who that saw red streaks shooting in the fine membrane which divides the white from the yolk, could suppose that these were about to become bones and limbs? Who, that espied two discoloured points first making their appearance in the cicatrix, would have had the courage to predict that these points were to grow into the head and heart of a bird? It is difficult to resuscitate surprise when familiarity has once laid the sentiment asleep. But, could we forget all that we know, and which our sparrows never knew, about oviparous generation; could we divest ourselves of every information but what we derived from reasoning upon the appearances or qualities discovered in the object presented to us, there is every reason to believe that harlequin coming out of an egg upon the stage is not more astonishing to a child, than the hatching of a chicken both would be, and ought to be, to a philosopher. But admit the sparrow, by some means, to know, that within that egg was concealed the principle of a future bird, from what chemist was she to learn, that warmth was necessary to bring it to maturity; or, that the degree of warmth imparted by the temperature of her own body, was the degree required?—To suppose, therefore, that the female bird acts in this process from a sagacity and reason of her own, is to suppose her to arrive at conclusions which there are no premises to justify. If our sparrow, sitting upon her eggs, expect young sparrows to come out of them, she forms a wild and extravagant expectation, in opposition to present appearances and to probability. She must have penetrated into the order of nature further than any faculties of our's will carry us; and it has been well observed that the deep sagacity, if it be sagacity, subsists in conjunction with great stupidity, even in relation to the same subject. "A chemical operation (says Addison) could not be followed by

greater art and diligence than are seen in hatching a chicken ; yet is the process carried on without the least glimmering of thought or common sense. The hen will mistake a piece of chalk for an egg ; is insensible of the increase or diminution of their number ; does not distinguish between her own and those of another species ; is frightened when her supposititious brood of ducklings take the water."

But it will be said that what reason could not do for the bird, observation, or instruction, or tradition, might. Now, if it be true that a couple of sparrows, brought up from the first in a state of separation from all other birds, would build their nest, and brood upon their eggs, then there is an end of this solution. "But what (continues Dr. Paley) can be the traditional knowledge of a chicken hatched in an oven?"

INJECTIONS. Many medical solutions and lotions are so called ; though the word more properly applies only to such compositions as are prepared solely for the purpose of being conveyed into such remote cavities, or sinuses, as may be formed by accident, imposthume, or disease, in any part of the body.

INTERFERE. A horse was formerly said to interfere, when one fetlock-joint received an injury in action, by a cut or blow from the foot of the other leg.

JOCKEY CLUB, RULES AND ORDERS OF THE.

*New Rooms, Newmarket,
29th Oct. 1828.*

At a general meeting of the members of the jockey club, the following rules and orders were unanimously approved of and agreed to be adopted as rules and orders of the jockey club, to commence and be in force from the 1st of January, 1829.

1. That the former published rules and orders of the jockey club be repealed on the 31st of December, 1828, and the following rules and orders be thence substituted and acted upon.

2. *Respecting the Stewards.* The three members of the jockey club, now acting as stewards, shall be continued in their office till the next annual meeting of the jockey club, when the senior steward (the one who has been the longest in office) shall quit his station immediately after the settling of the accounts at that meeting, and shall then name a member of the jockey club to succeed him, subject to the approbation of the remaining stewards and of the members of the jockey club then

present ; and at every subsequent annual meeting, the then senior steward shall in like manner retire and name his successor.

3. If any difference of opinion should arise on such nomination, it shall be decided by a majority of the members present ; which majority must include one (at least) of the continuing stewards ; if both the continuing stewards are in the minority, then there shall be a fresh nomination.

4. If any of the stewards should die or resign between the periods of the annual meetings, the surviving or continuing stewards may appoint a member of the club to succeed the deceased or declining steward, and to stand in his place in point of seniority ; but such nomination shall be notified to the club at their next annual, or at any special, meeting to be called for that purpose, and shall then be subject to the like approbation, as in the case of a senior steward retiring at the expiration of his stewardship.

5. All disputes relating to racing at Newmarket, or bets on racing elsewhere, if any of the parties interested should request the interference of the stewards, shall be determined by the three stewards and two referees (who shall be members of the club) one to be chosen by each of the parties concerned, if either of them shall desire to have referees. If only two stewards be present, they shall fix upon a third person, being a member of the club, in lieu of the absent steward ; but the stewards, if they think fit, may call in any other members of the jockey club to their assistance ; or may refer the case to a general meeting of the jockey club, if the importance or difficulty of the matter in dispute shall appear to them to require it.

6. If any dispute, arising elsewhere than at Newmarket, shall be referred to the stewards of the jockey club, and they shall think fit to take it into consideration, the matter must relate to horse-racing, the facts be reduced to writing, and be sent by, or with the sanction of, the stewards of the races where the matter in question occurred. All communications of this kind must be addressed "To the keeper of the match-book at Newmarket," and delivered free of postage.

7. The three stewards, or any two of them, shall have full power to make such regulations as they may think proper in regard to the course and exercise ground.

8. The three stewards shall have the power of appointing such person or per-

sons as they choose, to keep the coffee-room, the match-book, receive the stakes, and collect the entrance-money, and all other funds belonging to the jockey club; and the stewards shall be responsible to the jockey club for all the money collected as belonging to the club. They shall also have the power to appoint the judge of the races, clerk of the course, and other servants of the club.

9. The stewards shall fix the hour of starting for each race, by nine o'clock in the evening preceding the day of running, and notice of the time of starting is to be fixed up in the coffee-room immediately afterwards.

10. The stewards shall produce an account of the funds and disbursements of the jockey club at the annual meeting in each year.

11. *Respecting the admission of new members for the jockey club.* The ballot for members of the jockey club shall be in the New Rooms at Newmarket, or in such other place as the stewards shall appoint, on the Tuesday in the first spring meeting, and the Tuesday in the second October meeting of each year. Each candidate must be proposed by a member, and his christian and surname and usual place of abode, with the name of the member proposing him, put up in the dining and card rooms, at Newmarket (or in such other place as the stewards shall appoint), in the meeting preceding the ballot. Nine members (at the least) shall ballot; and two black balls shall exclude.

12. *For the New Rooms.* The ballot for members of the New Rooms may be in any of the seven established meetings at Newmarket. Each candidate must be proposed by a member of the jockey club, and his christian and surname and usual place of abode, with the name of the member proposing him, put up in the dining and card-rooms at Newmarket (or in such other place as the stewards shall appoint) on the day preceding the ballot. The ballot shall be in the morning between the hours of eleven and one, or in the afternoon between the hours of four and six. Members of the jockey club only shall be allowed to ballot. Nine members (at least) shall ballot, and two black balls shall exclude. If eighteen members ballot, there must be three black balls to exclude.

13. A member of any of the clubs in St. James's Street, known by the name of White's, Brookes's, and Boodle's, may

be admitted a member of the New Rooms without ballot, on paying the same sum for his admission, and the same subscription, as are required of members chosen by ballot.

14. *For the Coffee Room.* The ballot for members of the coffee-room shall take place in the coffee-room at Newmarket (or at such other place as the stewards shall appoint) on any day in the present seven established meetings, between the hours of eleven and one o'clock in the morning. Each candidate must be proposed by a member of the jockey club, and his christian and surname, and usual place of abode, with the name of the member proposing him, be put up in the coffee-room the day before the ballot. Members of the jockey club only can ballot. Twelve members (at least) must ballot, and two black balls shall exclude.

15. Any member of the new rooms may become a member of the coffee-room, on signifying his wish to be so to any of the stewards, or to the keeper of the coffee-room, and paying for his admission and subscription, as members chosen by ballot are required to do.

16. A person, though chosen, shall not be considered as a member of any of these clubs until he shall have paid the usual sums for the admission and subscription of a new member. And the name of every member, whose subscription shall be in arrear for one year, shall be placed over the chimney-piece in the new rooms and in the coffee-room at Newmarket, in the Craven meeting of each year. And if such arrear be not paid by the end of the following second spring meeting, he shall cease to be a member, and shall not be again admitted as a member until his arrears be paid, and until he be again chosen by ballot.

17. *As to Nominations.* In all nominations and entrances for stakes, subscriptions, and plates, of horses, &c. which have not started previously to the time of naming or entering, the sire, dam, and grandam of the horse, &c. named or entered, must be mentioned, if known, unless the dam has a name which is to be found in the Stud-Book or Racing Calendar, in which case the name of the sire and dam will be sufficient. If the horse, &c. named or entered be own brother or sister to any horse, &c. having a name in the Stud-Book or Racing Calendar, it will be sufficient to name it as such. If the dam or grandam be sister (but which sister must be specified, if there be more than one)

or dam, or grandam of any horse, &c. having a name in the Stud-Book or Racing Calendar, it will be sufficient to mention her as such. If the dam or grandam is not known, the sire of the horse, &c. must be mentioned, together with such other particulars as will be sufficient to identify the animal. If a horse has once appeared in the Racing Calendar by a name and his pedigree, it will be sufficient afterwards to mention him by his name only; even though he has never started. If the dam was covered by more than one stallion, the names of them all must be mentioned.

18. If any horse, &c. shall be named or entered without being identified as before directed, he shall not be allowed to start in the race, but his owner shall be liable to pay the forfeit, or, if a play or pay race, the whole stake. All bets on a horse so disqualified for starting shall be void.

19. No person who has once subscribed a stake shall be allowed to withdraw his name, and no nomination shall be altered in any respect, after the time of closing, without the consent of all the parties in the race being first obtained.

20. No nomination shall be received or considered as valid, so as to entitle the person naming to start his horse, &c. unless he shall, before the time of the closing of the stake named for, have paid up all arrears of stakes and forfeits; but he shall be liable to pay the forfeit of the stake so named for, if he shall previously have been a subscriber to the stake. All bets on a horse so disqualified for starting shall be void.

21. In every sweepstakes in which there shall be any allowance of weight to the produce of untried horses or mares, such allowance shall be claimed on the article by each subscriber before the expiration of the time of naming: and if not so claimed, no allowance shall be made, even though the horse or mare should prove to have been untried at the time of naming.

22. *Respecting Stakes and Bets.* All stakes for matches, subscriptions, and sweepstakes, shall be made before the hour of starting for the first race of the day, in cash, bank bills, or banker's notes, payable on demand, and be paid into the hands of the person appointed by the stewards to receive the same: and in default thereof by any person, he shall pay the whole stake as a loser, whether his horse come in first or not, unless such

person shall have previously obtained the consent of the party or parties with whom he is engaged, to his not staking. But this rule is not to extend to bets, which are to be paid and received as if no such omission had happened.

23. A day-book shall be kept by the person appointed by the stewards to receive the stakes; in which shall be entered an account of all matches, subscriptions, and sweepstakes, to be run for; and as the different stakes are made, they shall be entered therein as paid.

24. Five pounds per cent. shall be allowed on all forfeits under 100*l.* declared to the keeper of the match-book, at or before ten o'clock the evening before running: and if the forfeit amount to 100*l.* and upwards, 10*l.* per cent. shall be allowed. All forfeits shall be paid before twelve o'clock at night of the day fixed for the race, and on those forfeits which shall not be so paid, the deduction for the timely declaration of such forfeits shall not be allowed.

25. No person, shall start any horse, &c. unless he shall have paid all former stakes and forfeits to the keeper of the match-book, by ten o'clock in the morning of the day on which he intends to start his horse, &c. And this rule is declared to extend to all other places, as well as Newmarket, where races are run and engagements entered into by members of the jockey club. And it is recommended to the consideration of the stewards of other races where members of this club are not amongst the subscribers.

And where any person shall have bought a horse, with his engagements, this rule, as to all the engagements subsisting at the time of purchase, and to be run for subsequently thereto, shall be considered as extending to the purchaser, whether those engagements were entered into by the vender or any other person; and such horse, in whosoever hands he may be, shall not be allowed to start for any race until all the stakes due for such engagements shall have been paid. But in default of payment by the purchaser, the original subscriber to such engagements shall not be exonerated from his liability to make them good.

26. If any bet shall be made from signal or indication, after the race has been determined, such bets shall be considered as fraudulent and void, and shall not be paid. And if any servant belonging to a member of this society shall be found to

have betted from any such signal, or shall be concerned in making any such signal, he shall be dismissed from his service, and no further employed by any member of this society.

27. All stakes and bets, whether expressed to be in guineas or pounds, shall be paid in pounds sterling.

28. All double bets shall be considered as play or pay bets.

29. All bets depending between any two horses shall be void, if those horses become the property of the same person, or of his avowed confederate, after the bets are made.

30. All bets between particular horses shall be void if neither of them happens to be the winner, unless agreed by the parties to the contrary.

31. If a match or sweepstakes be made for any particular day in any race week, and the parties agree to change the day to any other in the same week, all bets must stand; but if the parties agree to run the race in a different week, all bets made before the alteration shall be void.

32. When the riders of any horses brought out to run for any race are called upon, by the person appointed to start them, to take their places for that purpose, the owner of every horse which comes up to the post shall be considered as liable to pay his whole stake, and all bets respecting such horses shall be considered as play or pay bets.

33. *Trials.* No person shall try the horse, &c. of any other person than his declared confederate, without giving notice of such trial, by inscribing the name or proper description of the horse, &c. tried, and the name of his owner, in the trial book, kept at the coffee-room, Newmarket, within one hour after the trial has taken place; or by nine o'clock in the morning, in case the trial should have taken place at an earlier hour; and the hour of running such trial, and also the hour of making the entry, shall be noted in the trial book. And in case any trial shall not be so entered, the groom having the care of the horse running with the trial horse, and being present at the trial, or if not present, then the owner of any horse running with such trial horse, shall forfeit and pay to the stewards of the jockey club, the penalty or sum of 10*l.* for every such offence; but the stewards shall have the power to mitigate such penalty to not less than 5*l.* in case it shall fall upon any groom.

34. Every bet made upon or against

any horse running in a trial, between the time of such trial and the entering of it in the trial book, whether it be entered within the time prescribed or not, shall be void.

35. Every engagement made with any horse, &c. running in a trial, between the time of such trial, and the entering of it in the trial book, whether it be entered within the time prescribed or not, shall not be run, but the owner of such tried horse shall be considered as having declared forfeit and be liable to pay the forfeit accordingly, unless his opponents, or any of them, shall desire to hold him to his engagement. And in case any horse so tried shall have started for and won any race made subsequently to the trial, and before the entry of it in the trial book, his owner shall not be entitled to the stake so won; and, in case he shall have actually received it, he shall pay it back into the hands of the stake-holder, who shall pay it over to the owner of the second horse, or, in case of a match, shall pay it over to the owner of the beaten horse; but if such horse shall have lost such race, his owner shall not be entitled to claim or to be repaid his stake or deposit for such race; and in those cases such disqualification shall attach to the horse, without regard to any change of the property in him; and if, with respect to the disqualification, there shall be any difficulty in ascertaining the horse or horses tried, the owner of the horse or horses so tried, shall be bound, on the request of the stewards, to declare to them which of his horses ran in such trial; and in case he shall decline so to do, the stewards shall have power to fix the disqualification upon any one or more of the horses of such owner, at their option.

36. No notice of trial shall be required where the trial is run at a greater distance than 25 miles from Newmarket.

37. The day, with respect to the engaging of the ground for trials, shall be divided into two periods, that is, previously to eight o'clock in the morning, and subsequently to two in the afternoon, from the first day of the Craven meeting to the end of the Houghton meeting; and previously to nine o'clock in the morning and subsequently to two in the afternoon during the rest of the year. No one stable-keeper shall engage the ground for both those periods on the same day, nor for more than two of those periods in the same week.

38. Notice for engaging the ground

shall, at least one day before the day it is used, be entered in a book to be kept for that purpose at the coffee-room at Newmarket. And no notice or warning shall be deemed sufficient unless given as before directed.

39. If any person shall be detected in watching a trial, or shall be proved to have employed any person to watch a trial, he shall be served with notice to keep off the heath; and if in the employment of any member of the club, or of any groom or rider employed by any member of the club, he shall be dismissed from his service, and not again employed.

40. *The Cup and Whip.* The cup may be challenged for on the Monday or Tuesday in the first spring meeting in each year: to be run for over the B. C. on Tuesday in the first October meeting following, by horses, &c. the property of members of the jockey club, four years old carrying 7st. 11lb. five years old, 8st. 8lb. six years old, 8st. 13lb. and aged, 9st. Each person, at the time of challenging, is to subscribe his name to a paper to be hung up in the coffee-room, at Newmarket, and deliver to the keeper of the match-book the name or description of the horse, &c. sealed up, which shall be kept till six o'clock on the Saturday evening of that week: and if not accepted, or only one challenger, to be returned unopened; but if accepted, or more than one challenger, to be then opened, and declared a match or sweepstakes for 200 sovs. each, play or pay. If the challenge be not accepted, the cup to be delivered to the keeper of the match-book, in the meeting ensuing the challenge, for the person who may become entitled to the same.

41. The whip may be challenged for on the Monday or Tuesday in the second spring or second October meeting in each year, and the acceptances must be signified, or the whip resigned, before the end of the same meeting. If challenged for and accepted in the spring, to be run for on the Tuesday in the second October meeting following; and if in the October, on the Thursday in the second spring meeting following, B. C. weight 10st. and to stake 200 sovs. each, play or pay.

42. *The £1 per cent. Plates.* The stakeholder shall deduct 1% per cent. from all sums won at Newmarket, in sweepstakes or matches, where the clear sum to be received by the winner, over and above his own stake, shall amount to 100% or more, (unless the winner shall object to allowing such deduction to be made) and the

money so raised shall be disposed of in the following manner; viz.

Two handicap plates of 100% each, for four, five, six years old, and aged horses, shall be annually given to be run for; one in the second October meeting, A. F. and the other in the Houghton meeting, from the D. I. And if any horse-keeper shall object to contribute to the above fund, he will not be allowed to start a horse for either of those plates.

43. *The Stake-holder at Newmarket.* The stakeholder at Newmarket shall be allowed to retain out of the stakes in his hands the following fees, for his trouble; viz.

For every match, one pound.

For every plate, one pound.

For every subscription or sweepstakes, where the whole stake exceeds 100% and does not amount to 1000% two pounds.

For every sweepstakes, where the whole stake amounts to 1000% or upwards, five pounds.

44. *Relating to matters not before specified.* If for any plate, sweepstakes, or subscription, the first two horses shall come in so near together that the judge shall not be able to decide which won, those two horses shall run for such prize over again, half an hour after the last race on the same day; the other horses which started shall be deemed losers, and be entitled to their respective places, as if the race had been finally determined the first time.

45. Every person who shall ride for a race at Newmarket, shall be weighed immediately after the same, and shall be allowed 2lb. above the weight specified for his horse to carry, and no more, unless the weight he actually rode be declared as the weight he intended to ride, as herein-after mentioned. The owner of every horse which shall be intended to carry more than 2lb. above his weight, shall, by himself or his servant, declare to one of the stewards, or to the keeper of the match-book, before ten o'clock on the morning of the day on which the race is run, what weight he intends his horse to carry, including the 2lb. allowed, which shall be immediately inserted in the list in the coffee-room. And if any horse shall run in a race, carrying more than 2lb. above his weight, without such declaration having been made, or, if after the race, on weighing the jockey, he shall not prove to have ridden the weight which it was declared the horse should carry, or shall have ridden more than 2lb. above

the weight declared, then such horse shall not be considered the winner of the race, even though he should come in first, but shall be placed as the last horse in the race, and his owner shall pay the stake, as for a beaten horse.

46. The persons appointed by the stewards to weigh the jockeys, shall, immediately after each day's race, report to the keeper of the match-book how much each horse carried, where he carried more than 2lb. above the specified weight. And the keeper of the match-book is, as soon after as may be, to communicate such report to the stewards, or one of them. And the weight each horse actually carried, if more than 2lb. above his weight, shall be published in the first list printed after the race, and also in the account published in the Racing Calendar.

47. Every groom shall have his horse at the post, ready to start within five minutes of the time appointed by the stewards. And every jockey is to be there, ready to start, within the same time. And every groom or jockey making default herein, shall forfeit 5*l.* to be paid to the keeper of the match-book, and by him accounted for to the stewards.

48. The person appointed to start the horses shall mark in his list the time when the horses in each race actually started; and, if there have been any false starts, the first of them shall be considered as the time of starting for that race. And he shall make a report thereof to the keeper of the match-book in the afternoon of the day the races are run. And if any delay beyond the allowed time shall have taken place, he shall state by whom, or by what cause, the delay was occasioned. He shall regulate his watch by the coffee-room clock, which shall be considered as the true time for this purpose.

49. If any horse, &c. intended to be entered for any plate or subscription, where entrance is required, shall be engaged to run on the day of entrance, he shall not be obliged to shew at the time of entrance; but if he have not before run at Newmarket, he shall shew at the place of entrance, within one hour after his engagements are over. But no horse that has before run at Newmarket need be shewn at the time of entrance, or afterwards.

50. When any match is made in which crossing and jostling are not mentioned, they shall be understood to be barred.

51. When any match or sweepstakes shall be made, and no weight mentioned,

the horses shall carry 8st. 7lb. each. And if any weight is given, the highest weight shall be 8st. 7lb.

52. When any match or sweepstakes shall be made, and no course mentioned, the course shall be that which is usually run by horses of the same age as those engaged: viz.

If yearlings, the Yearling Course.

If 2 years old, the Two Years Old Course

If 3 years old, Rowley's Mile.

If 4 years old, Ditch-In. And

If 5 years old and upwards, Beacon Course. And if the horses should be of different ages, the course shall be fixed by the age of the youngest.

53. The keeper of the match-book shall charge the proprietors of such horses as receive forfeit, and shall be excused from appearing, with the same fees for weights and scales, as if they had come over the course.

54. Towards defraying the expense of repairing the course and exercise ground, one guinea annually shall be paid in respect of every race-horse that shall be trained or exercised, or that shall run any private trial or public race thereon. And the same shall be paid by the stable-keeper or servant having the care of such horse, and be charged by him to the owner of such horse. Every such stable-keeper or servant shall, immediately after the Houghton meeting in each year, deliver to the keeper of the match-book at Newmarket, a list of the horses which have been under his care, liable to pay the said charge, and shall then also pay to the keeper of the match-book the money due for each horse.

55. If in running for any race one horse shall jostle or cross another, such horse and every horse belonging to the same owner, or in which he shall have a share, running in the same sace, shall be disqualified for winning the race, whether such jostle or cross happened by the swerving of the horse, or by the foul and careless riding of the jockey, or otherwise, and where one horse crosses the track of another next behind him, it shall be deemed a sufficient cause of complaint, even though he be a clear length, or more, before the horse whose track he crosses, it being desirable that, when once a jockey has taken his ground, he should not prevent any other jockey from coming up, either on his right or left hand. And if such cross or jostle shall be proved to have happened through the foul riding of

the jockey, he shall be disqualified from again riding at Newmarket; or shall be punished by fine or suspension for a time, as the stewards shall think fit; it being absolutely necessary, as well for the safety of the jockeys themselves, as for the satisfaction of the public, that foul riding should be punished by the severest penalties.

56. All complaints of foul riding must be made before, or at the time, the jockey complaining is weighed; and it may be made either by the owner, jockey, or groom of the horse, to one of the stewards, to the keeper of the match-book, to the judge of the race, to the clerk of the course, or to the person appointed to weigh the jockeys.

57. In naming or entering for any race where there shall be any particular conditions required as a qualification to start, it shall be sufficient if the horse were qualified at the expiration of the time allowed for naming or entering; and he shall not be disqualified by any thing which may happen after the expiration of that time, unless so specified in the article; and if any additional weight is to be carried by horses which have won one or more plates or races within the year, it shall be construed to mean the year of our Lord.

58. Where it is made a condition of any plate or subscription that the winner shall be sold for any given sum, the owner of the second horse being first entitled, &c. no other person than one who ran a horse in the race shall be entitled to claim. The horse claimed shall not be delivered till he is paid for; and he must be paid for on the day of the race, otherwise the party claiming shall not be entitled to demand the horse at any future period; but, nevertheless, the owner of the winning horse may insist upon the claimant taking and paying for the horse claimed.

59. When the qualification of any horse is objected to by ten o'clock in the morning of the day of starting, the owner must produce a certificate, or other proper document, to the steward, or clerk of the course, or to the keeper of the match-book, if the case happen at Newmarket, before the race is run, to prove the qualification of the horse; and if he shall start his horse without so doing, the prize shall be withheld for a period to be fixed upon by the stewards, on the expiration of which time, if the qualification be not proved to the satisfaction of the stewards, he shall not be entitled to the prize,

though his horse shall have come in first, but it shall be given to the owner of the second horse. When the qualification of a horse is objected to after that time, the person making the objection must prove the disqualification.

60. It is expected that every member of the clubs at Newmarket, and every person running or training horses at Newmarket, shall consider themselves amenable to these rules, and such others as the stewards may from time to time think fit to adopt for the better regulation of racing at Newmarket. And all trainers, jockeys, grooms, and servants of such persons, are strictly enjoined to observe the same. And if any trainer, jockey, groom, or servant, shall be proved to have been guilty of any infraction of these rules or orders, or of any of them, he will be punished by the stewards, to such extent as they may think the case requires, and in such a manner as they may have power to enforce.

61. All disputes referred to the stewards of the jockey club will be adjudged according to their published rules and orders, where any of them are applicable to the case submitted to them; and where not, according to the established rules of racing.

S. BATSON,
LOWTHER,
RICHMOND, } Stewards.

ADJUDGED CASES.

Case 1. A, B, and C, run for a subscription, the best of heats. A wins the *first* heat, B the *second*.—C's rider, after saving his distance the second heat, dismounts between the distance-post and the end, but remounts, rides past the ending-post, and weighs as usual; starts, and wins the *third* heat, and weighs, without any objection being made.

A, being second the third heat, in a short time afterwards demands the subscription (not knowing till then that C's rider had dismounted) and refuses to start for the *fourth* heat, which B and C run for, and C wins.

It was decided, that no objection having been made to C's starting for the third heat, he was entitled to the prize.

Case 2. The winner of a plate, whose horse had distanced all the others, applied for the stakes or entrance money, which was advertised to be paid to the second best horse that won a clear heat—one of the distanced horses had won the first heat.

It was decided, that the winning horse cannot be deemed the second horse, and therefore was not entitled to the stakes; and all the others being distanced, no other person could claim them.

Case 3. A gold cup, &c. for horses that never won.

A	.	.	.	1
B	.	.	.	2
C	.	.	.	3

The owner of B claimed on the ground of A's disqualification, he having, the preceding year, won a clear heat at Chelmsford, to entitle him, according to their articles, to the stakes or entrance-money.

It was decided that A was not disqualified, the term "winner" applying only to the horse that beats all the rest.

Case 4. Whether a horse, having won a sweepstakes of 23gs. each, (3 subscribers) is qualified to run for a 50l. plate, expressed to be for horses that never won plate, match, or sweepstakes, of that value?

It was decided, that it was the practice, in estimating winnings, to consider the clear sum gained only, and consequently to exempt the stake of the proprietor; the horse, therefore, which had won a sweepstakes of 46gs. only, viz. two stakes of 23gs. each, was not thereby disqualified for the 50l. plate above-mentioned.

Case 5. Mr. Baird having entered two horses for the Kings's plate at Newcastle, in 1793, and won it with Sans Culotte, (his other horse not starting) the owner of the second horse objected to his receiving the plate, on the ground that he was disqualified by having *entered* two horses.

It was decided, that Mr. Baird was entitled to the plate.

Case 6. A betted B, that a mare should trot a mile in five minutes, in four minutes and a half, and in four minutes; all which, it was stated, she won with ease; but B measuring the distance after the races were over, found it was short of a mile by four yards.

It was decided, that as no objection was made to the measure of the course before starting, and the mare having performed the distance set out, and not objected, A won all the bets.

JOCKEYS. We extract the following from that interesting little book, the "Turf Expositor."—

"Jockeys (observes the author) I regard, in the aggregate, as honest men than trainers, unless, indeed, where the two professions are united; and, when I behold a man thus circumstanced, I can-

not help viewing him in the light of a Janus of Mischief, calculated to put in practise every species of trickery, on both sides the question.

Jockeys may be divided into two, if not three, classes: namely, the southern jockeys, the northern jockeys, and the *dirty* jockeys. The first class are those which are seen at Newmarket, Ascot, Epsom, and indeed in most of the races in the southern counties, and also at Doncaster. The second class attend the Yorkshire meetings, and what, for the sake of distinction, I will call the northern circuit. The third or *dirty* class, are met with still farther to the north, in Westmoreland, Cumberland, &c. and are remarkable for their slovenly, dirty, and unworkmanlike appearance:—it is no uncommon occurrence to see these wretched apologies for jockeys (at Kendal for instance) ride in dirty jackets, dark greasy corduroys, and gaiters of a similar complexion. Mr. Thomas Simpson's jockey frequently appears thus, though Mr. Simpson is wealthy and highly respectable; but evidently not very scrupulous on the score of cleanliness. The southern jockeys, much to their credit, appear on horseback with a neatness and cleanliness bordering upon elegance; and their performance is, for the most part, of a superior order—superior, in fact, to their rivals of the north; they are illiterate, ignorant men, with little exception; though, in private, they affect a mysterious but plebeian, importance, and would willingly be thought a sort of semi-gentlemen, which, however, their very attempt to assume such a character renders impossible. There is much less of this ridiculous and ignorant affectation about the northern jockeys, who yet seem, it must be confessed, not nearly so anxious about their appearance on horseback (as far as relates to the advantage of dress;) as their brethren of the south.

The question next arises as to which are the best workmen. The southern, beyond a doubt; that is, speaking generally: but, it must be admitted, that there are some excellent northern jockeys, who would lose little by the comparison with either Chifney, Robinson, Dockeray, or any of the most favourite riders of the present day. Buckle is now grown old, and does not often appear; otherwise, I should place him at the head of the list. H. Edwards must be classed, I imagine, amongst the northern jockeys; he has a good seat, good hands, and a good head;

and is altogether an excellent rider ; I am doubtful if his superior is to be found. T. Shepherd, a northern jockey, has a good head, and I have always admired his riding ; I think his abilities have generally been much underrated. Lear is a promising young northern jockey ; but he must be careful not to let his self-opinion and overbearing temper supersede the plain uncultivated sense he possesses. Templeman is what may be called an improving jockey : he has a good seat, and I have frequently been much pleased with his performances. He rode Dr Faustus (Sir T. Stanley's) very well at the Liverpool summer meeting (1829), and I thought won the cup—I was not singular in this opinion : the judge, however, decided in favour of Velocipede. I never recollect observing a horse better managed than Forth managed his own horse Frederick, when running this year (1829) at Epsom, for the Derby. He had betted to a considerable amount on Exquisite (also his own horse, and came in second) particularly with Mr. Crockford ; but shifted his money, the evening before running, on Frederick, and thus became a winner to a very considerable amount. There are many very awkward jockeys, possessing but very slender requisites for the profession which they have embraced ; to point them out, however, by name, would appear ill-natured and invidious.

It is some dozen years or more since "Old Billy Pierse" quitted the avocation of a jockey. This man I always considered as a very superior rider—as one of the best I ever saw. In stature, he was one of the shortest of his fraternity : but he was a sort of dwarf Hercules : he was able to give his horse a pull without any perceptible movement of his body ; and, of all the jockeys I ever saw, not one sat so steadily upon his horse. He never acquired the fame of Chifney ; though there are those who think his merits were equal, if not superior, to that celebrated jockey :—such is the opinion of one gentleman, in particular, whose superior judgment I have frequently experienced, and very much admired.

What I have denominated the "dirty jockeys" are little worthy of consideration. They are very indifferent riders, but made up of trick and cunning ; and ready at any time to put in practice their sinister arts for the purposes of deception, swindling, and fraud.

There is another class of jockeys, which

cannot be passed over in silence :—I allude to what are called *gentlemen riders*, a term grossly misapplied in many instances. I have always considered it a mistaken notion for gentlemen to appear on the race course in the character of jockeys :—it cannot be in imitation of the heroes of old, who were so emulative in the Olympic games. There is no accounting for taste ; so the circumstance of gentlemen converting themselves into jockeys, where *real gentlemen* only are concerned, might be excusable, or passed over with the slightest possible reprehension ; but the business has been so subjected to abuse, that, I have not the least doubt, were this description of jockeyship entirely superseded, it would give very general satisfaction to the true friends of the turf. In the first place, with the exception of Lord Wilton, Mr. White, and some others, there are few gentlemen but what make a poor, or perhaps ridiculous, figure in riding a race. When gentlemen are to ride, it seldom happens that the patience of the multitude is not put to the test : if the preparations for gentlemen riders are not more complex than those of the professed jockeys, they cannot be either so well defined, or so direct, since they occupy a period of time, of at least six times the duration. But this is by no means the worst of the business :—the system is liable to very gross abuse ; and a class of men contrive to insinuate themselves into it, who have very meagre pretensions, indeed, to the character of *gentlemen*, and whose operations are, for the most part, merely a cloak for the basest purposes. I have often been surprised, that those genuine or sterling gentlemen who choose to contend in the race are not more scrupulous as to the persons in whose company they thus appear : accustomed as they are to the turf, they cannot be unconscious, surely, that men frequently are seen as gentlemen riders, who are not only destitute of every honourable feeling, but whose exertions are made in furtherance of a system of swindling, base, degrading, and utterly incompatible with the best interests of the turf. Also, a number of these men cannot come fairly under the description of amateur riders, since they go from race to race throughout the season, and are in the constant habit of riding, which they understand as well as the regular jockeys : what chance has a mere amateur against such competitors ?

COLOURS WORN BY JOCKEYS.

Lord Ailesbury . . .	scarlet body, yellow sleeves, black cap.
Lord Anson . . .	sky blue, with black cap.
Mr. Batson . . .	crimson and white stripe, black cap.
Mr. Beardsworth . . .	crimson.
Mr. Benson . . .	white body, mazarine blue sleeves, chequered cap, blue and white.
Sir J. Beresford . . .	pink and white.
Mr. Berkeley Bond . . .	celestial blue body.
Mr. Biggs . . .	green, with red cap.
Gen. Sir J. Byng . . .	orange body, light blue sleeves, and black cap.
Lord G. H. Cavendish . . .	orange.
Mr. L. Charleton . . .	red and white stripe, with black cap.
Lord Clarendon . . .	blue, with red collar and cap.
Lord Cleveland . . .	pink and black stripe, with black cap.
Mr. Clifton . . .	yellow and snuff brown, broad stripe round the body.
Mr. Gilbert Crompton . . .	orange satin.
Mr. Fulwar Craven . . .	purple, with orange cap.
Col. Cradock . . .	blue body and cap, with white sleeves.
Lord Derby . . .	black, with white cap.
Mr. Dickinson . . .	scarlet body, with white sleeves and cap.
Mr. Dilly . . .	red, with white cap.
Mr. Douglas . . .	yellow body, black sleeves and cap.
Mr. Dundas . . .	light blue, with orange cap.
Lord Egremont . . .	dark green, with black cap.
Lord Exeter . . .	light blue and white narrow stripe, and black cap.
Mr. A. Farquharson . . .	red, with black cap.
Lord Fitzwilliam . . .	grass green satin, with black velvet cap.
Lord Foley . . .	green and white stripe.
Mr. Garforth . . .	light blue.
Mr. Gascoigne . . .	black and white.
Mr. Gauntlett . . .	crimson, with white cap.
Mr. Giffard . . .	light blue and yellow, with black cap.
Mr. Goddard . . .	white body, mazarine blue seams, sleeves and cap.
Mr. Ormsby Gore . . .	scarlet, with purple and velvet cap.
Duke of Grafton . . .	scarlet.
Mr. Greville . . .	purple, with black cap.
Lord Grosvenor . . .	} yellow, with black cap.
General Grosvenor . . .	
Mr. Gully . . .	violet, with white cap.
Mr. Haffenden . . .	crimson body and cap, black sleeves.
Mr. Heathcote . . .	crimson, with black cap.
Mr. Holyoake . . .	white, with gold buttons.
Mr. Houldsworth . . .	green and gold, with yellow cap.
Mr. Hunter . . .	white body, crimson sleeves, and crimson cap tied with white riband.
Lord Jersey . . .	dark blue and buff stripe, black cap.
Mr. Irby . . .	orange, with white cap.
Mr. R. Jones . . .	black body, white sleeves and black cap, tied with white riband.
Mr. Johnson . . .	red, purple cap.
Colonel King . . .	mazarine blue, crimson sleeves, and cap.
Lord Durham . . .	blue and buff, with black cap.
Duke of Leeds . . .	chocolate, with black cap.
Lord Lowther . . .	white and yellow stripe, with red cap.
Lord Lynedoch . . .	light blue and crimson stripe.
Mr. Maberly . . .	crimson, with white cap.
Mr. Maule . . .	orange, with mazarine blue cap.
Mr. F. Mills . . .	black and white broad stripe.
Mr. J. Mills . . .	white, with red cap.

Mr. R. Milnes	black body, pink sleeves, with white cap.
Lord Milton	green.
Mr. Molony	black and white stripe across the body, light blue cap.
Sir D. Moncrieffe	white.
Sir T. Mostyn	yellow, with black cap.
Lord Mountcharles	French grey, with scarlet cap.
Mr. Mytton	green and white, black cap.
Mr. Nowell	rose colour, with black cap.
Lord Orford	orange body, black sleeves, and white cap.
Mr. Payne	black and white broad stripe.
Hon. E. Petre	black body, pink sleeves, and black cap.
Mr. R. Petit	black and white stripe across the body, blue cap.
Mr. Peel	orange.
Sir George Pigot	yellow, with black cap.
Duke of Portland	white, with black sleeves and cap.
Hon. T. O. Powlett	deep yellow, with purple cap.
Mr. Prendergast	black body and red sleeves.
Mr. Pringle	azure and white stripe, cap quartered.
Lord Queensberry	deep red, with black cap.
Mr. Delme Radcliffe	blue, trimmed with scarlet, and black cap.
Mr. Radclyffe	yellow, with black cap.
Mr. Ramsbottom	purple body, orange sleeves and cap.
Mr. Rawlinson	pink, with black cap.
Duke of Richmond	yellow, with red cap.
Mr. Riddell	blue and yellow.
Sir M. W. Ridley	pink body and cap, white sleeves.
Mr. Ridsdale	sky blue body, white sleeves and cap.
Mr. Roberts	white, with scarlet and white cap.
Mr. J. Rogers	white and yellow stripe, with red cap.
Mr. Rush	black, with red cap.
Mr. Russel	white, with gold buttons.
Col. Russel	blue and buff stripe.
Duke of Rutland	light blue, purple sleeves, black cap.
Mr. Sadler	white body, scarlet sleeves, black cap.
Lord Scarborough	sky blue and white stripe.
Lord Sefton	white body, yellow sleeves and cap.
Sir J. Shelly	black, with white cap.
Lord Sligo	white, with crimson sleeves.
Mr. H. Smith	white, with yellow cap.
Lord Southampton	dark blue and white quartered—cap, dark blue.
Mr. Sowerby	light blue.
Sir T. Stanley	blue body, yellow sleeves, blue and yellow cap.
Mr. Scott Stonehewer	yellow.
Lord Stradbroke	pale blue satin.
Sir Tatton Sykes	orange body, purple satin sleeves, cap.
Mr. Thompson	crimson, black cap.
Lord Tavistock	blue and buff stripe.
Mr. Thornhill	white body, scarlet sleeves, white cap.
Mr. Thornhill (Oxon)	black, with orange cap.
Mr. Tones	black body and cap, light blue sleeves.
Mr. Vansittart	white, with blue cap.
Lord Verulam	white, with black and yellow down the seams, and black cap.
Mr. Udiy	pea green.
Mr. R. W. Walker	pink, with black cap.
Lord Warwick	brown body, white sleeves, and cap.
Mr. Watt	harlequin.
Mr. West	mazarine blue, with black cap.
Lord Wharnccliffe	white.
Mr. White	pink body, black sleeves, and cap.
Mr. Wilson	light blue, trimmed with black, and black cap.

Col. Wilson	green and red stripe.
Mr. R. Wilson	white, with green and velvet cap.
Lord Wilton	dark blue and white stripe, black cap.
Sir W. Wynne	crimson and white quartered, with white cap.
Mr. Wadham Wyndham	dark blue body, yellow sleeves and cap.
Major Yarburgh	dark blue, with red cap.
Mr. Yates	orange.
Col. Yates	purple, with orange cap.

JOCKEYSHIP is a term sometimes used in a metaphorical sense, alluding to the dealings of individuals, where one, by a superior degree of knowledge, cunning, artifice, or chicanery, obtains in a *bargain* considerable advantage over the other. Its principal signification, however, in its literal meaning, and frequent use, applies more particularly to the peculiar excellence, or personal ability, of Jockeys, whose avocation it is to ride horses for the different plates and prizes at Newmarket, and various other parts of the kingdom. The great and leading qualifications which constitute the predominant traits of distinguished jockeyship, are to acquire a complete knowledge of the prevalent points, speed, temper, mouth, and perfections or defects, of the horse before starting; to ascertain, as well as it can be accomplished, a tolerable idea, whether it will be most in his favor to insure the whip-hand, or decline it; to take the lead, or leave it, and wait upon his adversary; whether to make play, or to lay by: all these, and a variety of other contingencies dependent upon judgment, as well as a still longer list, which must ever be equally dependent upon the sole

effect of chance, seem combined to render jockeyship a very arduous task.

JOHN BULL. The name of a horse of much celebrity both as a racer and a stallion; having been deemed, by the best judges, a horse of the greatest strength, and the most beautiful and corresponding symmetry, ever produced in this kingdom. He was bred by the late Lord Grosvenor; foaled in 1789; got by Fortitude, dam (Xantippe) by Eclipse; her dam (Grecian Princess) by Williams's Forester, &c. &c. Monday, in the Craven Newmarket meeting, 1792, when three years old, he won the great produce stakes of 200 guineas each, half forfeit, across the flat, 35 subscribers; beating Ormond, Hotspur, Whisky, St. Paul, Lucifer, and three others. At Epsom, in May, the same year, he won the Derby stakes of 50 guineas each, 32 subscribers; beating Speculator, Bustard, Lyricus, St. George, Whisky, and the Duke of Queensbury's colt by Pharamond. Soon after which, sustaining an injury, he paid 300 guineas forfeit to Lord Foley's Vermin, and became a stallion, 1796, at 20 guineas a mare.

IRISH GREYHOUND, OR WOLF DOG. This animal might perhaps be considered as the first of the canine race; but it is now very rare, even in the only country in the world where it is to be found, and is rather kept for show than use, there being neither wolves, nor any other formidable beasts of prey in Ireland, that seem to require so powerful an antagonist. The Irish greyhound or wolf dog is therefore bred up by such persons as choose to keep him as a curiosity. He is beautiful and very majestic in appearance, being the largest of the dog kind to be seen in the world. Goldsmith says, "the largest of those I have seen (and I have seen above a dozen) was about four feet high, or as tall as a calf of a year old. He was made extremely like a greyhound, but rather more robust, and inclining to the figure of the French *matin* or the great Dane. His eye was mild, his colour was white, and his nature seemed heavy and phlegmatic. This I ascribed to his having been bred up to a size beyond his nature; for we see in man and all other animals, that such as are overgrown are neither so vigorous, nor so alert, as those of a more moderate stature. The greatest pains have been taken with

IRISH GREYHOUND

these to enlarge the breed both by food and matching. This end was effectually obtained indeed, for the size was enormous; but as it seemed to me at the expense of the animal's fierceness, vigilance, and sagacity. However, I was informed otherwise; a gentleman who bred them assuring me that a mastiff would be nothing when opposed to one of them, who generally seized their antagonist by the back; he added, that they would worry the strongest bull-dog to death in a few minutes. But their strength did not appear either in their figure or their inclinations; they seemed rather more timid than the ordinary race of dogs; and their skin was much thinner, and consequently less fitted for combat. Whether, with these disadvantages, they were capable, as I was told, of singly coping with bears, others may determine; however, they have but few opportunities in their own country of exerting their strength, as all wild carnivorous animals there, are only of the vermin kind. They were once employed in clearing the island of wolves, which infested it in great plenty; but these being destroyed, the dogs are also wearing away, as if nature meant to blot out the species, when they had no longer any service to perform."

From other writers on the subject we are given to understand, that the Danish dog, the Irish greyhound, and the common greyhound of this country, though they appear so different, are but one and the same race of dog. The Danish dog is said by Buffon to be but a more corpulent Irish greyhound; and that the common greyhound is the Irish greyhound rendered thinner and more fleet by experimental crosses, and more delicate by speculative culture; for these three different kinds of dogs, though perfectly distinguishable at first sight, differ no more, comparatively, from each other than three human natives, of Holland, Italy, and France; and by the same mode of argument, he justifies the supposition, that, had the Irish greyhound been a native of France, he would have produced the Danish dog in a colder climate, and the common greyhound in a warmer one; and this conjecture, he observes, is absolutely verified by experience, as the Danish dogs are brought to us from the north, and the greyhounds from the Levant.

Having given the opinions of others on this ambiguous subject, we will venture to express our own. From those specimens of the Irish greyhound which have fallen under the observation of the writer, he has much reason to believe that they were originally produced by crossing the mastiff and the common greyhound; but the immediate offspring of such a conjunction would not be the animal in question, as it would be too heavy and sluggish, or partake too much of the nature of the mastiff; another cross of the greyhound, however, that is, two thirds of the greyhound and one third of the mastiff, would give us something very like the Irish greyhound or wolf dog: the strength of the mastiff is thus decreased; but this seems to be more than compensated by the great increase in activity, and the keenness of the bite.

But nothing can be more erroneous than the supposition, that the Irish greyhound is the precise kind of dog frequently introduced in the productions of Rubens, Snyders, and others, as well as in the

popular and well known prints of Redinger, where dogs are represented in contact with the wild boar. The German boar dog is a very different animal from the Irish greyhound; and indeed the latter has a very strong resemblance to the tough, wire-haired greyhound frequently seen in the north of England and in Scotland, only larger and more powerful.

ITCHING. Horses are sometimes observed to labour under a severe itching, or external irritation, which keeps them in a kind of perpetual disquietude; biting such parts as they can get at with the mouth, and rubbing those more remote against such parts of the stall as are most convenient. In cases of this description, the blood does not possess a proper or just equalization of the component parts indispensably necessary to the standard of health. Permitted to continue and increase, it extends its progress from a simple itching, in the first instance, to scurfy eruptions, scaly exfoliations, or partial loss of hair; bearing the external appearance of surfeit, degenerating, by degrees, to inveterate mange, or confirmed farcy. Bleeding should be resorted to, the system improved, and the circulation enlivened, by an invigoration of the frame: the property of the blood should be enriched by an alteration in the quality of the food. A great deal of substantial dressing should be adopted in the stable, and regular gentle exercise out.

JUCKING. Partridges are said to *juck* when they congregate for the night.

JUDCOCK, or JACK SNIPE. This bird is scarcely half as large as the common snipe, though its haunts are similar; but it is more rare, and will generally lie so close as to suffer itself almost to be trod upon before it will rise; its flight is seldom distant; and though it does not seem to fly so fast as the common snipe, yet it presents a more difficult shot; or, at least, so the writer has found it. As it rarely flies far, so it may be followed and fired at as often as necessary; and instances have been known where one of these little birds has furnished amusement for a sportsman during the whole season!

The jack snipe will scarcely weigh two ounces; and it is in some parts of the country, distinguished by the name of the *half snipe*. The length of this bird is eight inches; the bill is something more than an inch and a half long, and black; crown of the head tinged with rust colour; a black streak divides the head lengthways from the base of the bill to the nape

of the neck; over each eye a yellow streak passes to the hinder part of the head; neck varied with white, brown, and pale red; scapulars narrow, very long, brown, and margined with yellow; the rump of a glossy bluish purple; belly and vent, white; the greater quill feathers, dusky; tail, brown, with tawny edges, and consisting of twelve pointed feathers; the legs are of a cinereous green.

This bird breeds in our marshes; and lays five or six eggs, of a dirty olive colour.

JUDGE. A person appointed to place the horses in a race. I have frequently known dissatisfaction to arise from the manner in which the judge has placed the horses; for instance, at the last Epsom races (1829) the first race, the first day, was very closely contested by Conrad and Fleur de Lis. I was nearly opposite the winning post, and felt no hesitation in supposing Conrad the winner; I heard great numbers express their opinion to the same effect. The judge decided otherwise. At the Liverpool meeting in July, 1829, the gold cup was decided in favour of Velocipede, though many persons insisted that Dr. Faustus was the winner. Templeman, who rode Dr. Faustus, unhesitatingly declared his unqualified conviction that he won the race. Now, since no person can tell so exactly which wins as the judge, from the situation in which he is placed, I am very willing to suppose, that, in both cases, the decision was correct. Many other instances might be adduced, but as they merely form a catalogue of unmeaning repetition, I shall not state them.—However, a judge, in order to be master of his business, or qualified for the important office which he undertakes, should be generally acquainted with the jockeys, the colours, and also the horses, particularly when they come within distance, or he will find it a difficult matter, should the race be finely contested, to give a correct decision—a decision satisfactory to his own mind.—A judge should abstain from betting, if he wish to avoid suspicion.—TURF EXPOSITOR.

JUGGED. A technical term with the horse-dealing fraternity; and implies a horse's having tumefactions under the jaws. But when used in a more serious and emphatic sense, it is to convey an idea, that the horse is infected with the glanders.

JUNE. If this month (and also the preceding) be fair and dry, an abundance of winged game may be expected. Much rain is highly injurious to young birds; while dry weather is not only more con-

genial to their nature, but furnishes food in abundance, which principally consists of insects.—Young grouse are on the wing.

JULY. Early mowing is destructive to the incubation of partridges and pheasants; for, although many young birds (the greater part) are brought forth prior to this period, yet the eggs of yearling birds are seldom hatched before July.—Young grouse are strong on the wing.

K

KEEPERS are of different kinds, acting under different appointments, as servants of the crown, or of individuals. There are forest keepers, park keepers, and game keepers, whose employments are distinct and separate from each other. It is the province of the first to superintend and protect the deer in any one of his majesty's forests to which he is appointed, and to become a principal instrument of enforcing the laws enacted for its preservation, against depredators of every description. Park-keepers are retained in the service of noblemen and gentlemen who have parks stocked with deer; their employment is principally to superintend, preserve, and regulate the stock, as well as to kill bucks, does, and fawns, according to the season, when required for the table; which can never be done by any park-keeper of the crown without a proper warrant previously issued from superior authority for that purpose.—Game-keepers are employed in various forests, parks, chases, free warrens, and manors, to protect, preserve, or kill any kind of game upon the particular place or manor for which they are appointed; to execute and enforce all such manorial rights and privileges within the department, as may be submitted to their delegation; but for further information on the subject the reader is referred to the article **GAME-KEEPERS**, page 352.

KENNEL is the place where hounds are kept; and upon the judicious construction of which their health, safety, and preservation mainly depend. We have, under the article of **FOX HUNTING**, described the kennel, and refer to it accordingly. Among the most extensive, as well perhaps as the most approved, kennels, are those of the Duke of Bedford at Woburn Abbey; the Duke of Richmond's at Godwood in Sussex; and Sir

William Rowley's at Tendring Hall, Suffolk. The erection of the Duke of Richmond's kennel is said to have cost £10,000.

KENNEL. As we say a hare's seat or form, we say a fox's kennel: a fox being found by the hounds in drawing cover, he is then said to be unkenneled.

KIBBLE. The first remove from the southern-hound is the *kibble*. See the article **HOUNDS**.

KIBES, in horses, are the cracks which appear in the heels during the severity of the winter season, and are much more the consequence of neglect, or a want of knowledge in the stable discipline, than the effect produced by changes in the weather. They proceed mostly from being left with wet legs, which, in very cold or frosty weather, occasions such a tightness and rigidity of the skin, that, when brought into sudden and brisk action, it bursts asunder, (in a greater or less degree,) according to the texture of the skin, or the constitutional irritability of the horse. These soon become exceedingly painful; and if the weather should repeatedly vary from short frosts to alternate thaws, and the horse continue in use, the constant insinuation of the sharp particles of small gravel and sand of the dirty roads, is productive of such excruciating sensations, that the animal refuses food, and does not lay down for many days and nights in succession: when even gently compelled to move, he lifts up the limb in so much misery, that it is with the greatest reluctance he brings it again to the ground. Cure may be effected by poultices made of linseed powder, milk, and a little olive oil, applied immediately after comfortable softenings with warm gruel, and a small sponge: an alterative powder in a mash, nightly, and the use of camphorated spermaceti liniment, night

and morning, when the poultices are left off, will be found greatly to assist the general intent, letting the horse rest.

KIDNEYS. The distinguishing symptoms of diseased kidneys in the horse, are a palpable weakness of the hind part of the back and loins, a painful sinking of those parts upon pressure, a difficulty of staling, which is generally voided partially in small quantities, and frequently with short groans of internal disquietude: in slight affections, the urine is white, but turbid; in severe cases, very high coloured, as if tinged with blood: there is mostly a heaviness of the eyes, debility of body, a loathing of food, and a tendency to symptomatic fever. From whatever cause an injury may arise, or from whatever state of the body a disease of the parts may proceed, bleeding largely is the first step to speedy relief, and the prevention of danger. The quality and quantity of medicine must be regulated by the shades, as well as the duration, of the disorder, according to consequences liable to ensue. Warm clysters of gruel and olive oil occasionally; mashies, made of ground malt and bran, for food; and thin gruel for drink, in which gum-arabic should be dissolved, to lubricate the passages, and sheath any asperity with which the parts may be affected. Should the weakness of the loins increase, the difficulty of staling continue, the urine become more thick and fetid, the strength more reduced, and the frame emaciated, one or both the kidneys may be considered in a state of ulceration, and cure cannot be expected.

KINDLE. A doe rabbit is said to kindle when she brings forth young.

KING FERGUS. The name of a horse bred by the late Colonel O'Kelly; he was foaled in 1775; was got by Eclipse, dam (Tuting's Polly) by Black-and-all-Black, grand-dam by Tartar, great grand-dam by Old Starling. He was of great celebrity, and continued for many years a stallion of the first eminence. He was the sire of a great number of good racers, amongst which were those celebrated runners Hambletonian, Overton, Benningbrough, Sir Solomon, Warter, Johnny, Garswood, &c. &c.

KING'S PLATE. Those called king's plates, are a free gift from his majesty of 100 guineas each; and, it is believed, were originally granted as a means of exciting such a degree of emulation, as would probably tend to national advantage, by improving the breed of horses in general;

as well as to afford an annual pecuniary advantage to such cities and towns as enjoy the royal favour.

KING'S PLATE ARTICLES.—It is his majesty's command, that these following Rules be observed by the owners and riders of all such horses, mares, and geldings, as shall run for his majesty's plates at Newmarket.

1. Every horse, mare, or gelding, that runneth for the said plates, shall carry twelve stone, fourteen pounds to the stone, three heats.*

2. Every person that putteth in a horse, mare, or gelding, for the said plate, is to shew such horse, mare, or gelding, with the marks, name, and name of the owner, to be entered at the king's stables in Newmarket the day before they run; and shall then produce a certificate under the hand of the breeder, that his horse, mare, or gelding be no more than —— years old the grass before.

3. Every horse, mare or gelding, that runneth, is to start between the hours of one and four in the afternoon; and to be allowed half an hour between each heat to rub.

4. Every horse, mare, or gelding, that runneth on the wrong side of the posts or flags, or is distanced, in any of the heats, shall have no share of the said plates, nor be suffered to run any more.

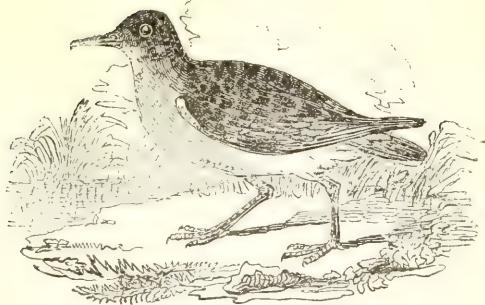
5. The horse, mare, or gelding, that winneth any two heats, winneth the plate; but if three several horses, mares, or geldings, win each of them a heat, then those three, and only they, to run a fourth heat, and the horse, mare, or gelding, that winneth the fourth heat, shall have the plate.

6. And each horse's, mare's, or gelding's place, as he or they come in, by the ending-post, each heat, as first, second, third, &c. shall be determined by such judges as shall be appointed for that purpose by the Master of the Horse. And in case any horse, mare, or gelding, shall be then, or after, proved to be above the age of —— years the grass before, the owner or owners of such horse, mare or gelding, shall be made incapable of ever running for any of the king's plates hereafter.

7. As many of the riders as shall cross, jostle, or strike, or use any other foul play, as shall be judged by such person or persons as shall be appointed by the Master of the Horse, such rider shall

* By order, it is altered to one heat, and different weights are appointed.

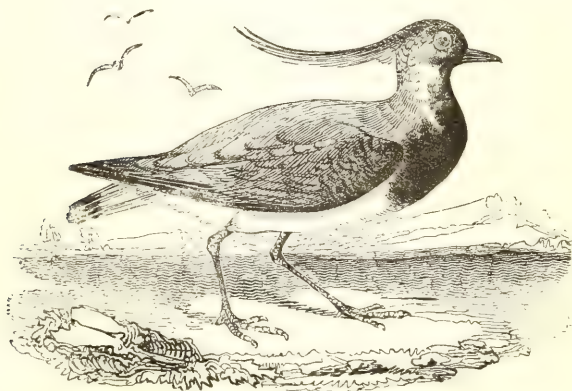
BIRDS, ETC. *Plate V.*



KNOT, *p.* 517.



OTTER, *p.* 573.



PLOVER, or LAPWING, *p.* 640.

be made incapable of ever riding any horse, mare, or gelding, for any of his majesty's plates hereafter; and such owner shall have no benefit of that plate; but such owner may be permitted to run any horse, mare, or gelding, for any other of his majesty's free plates hereafter.

8. Every rider shall, immediately after each heat be run, be obliged to come to the usual place of weighing, with his horse, mare, or gelding, then and there to alight, and not before, and there to weigh to the satisfaction of the judges appointed for that purpose.

9. And in case of neglect or refusal thereof, such owners and riders shall be immediately declared incapable of running or riding any more for this or any of his majesty's plates hereafter.

10. And in case any difference shall arise relating to their ages, or in their running, or to these his majesty's orders, &c. the same to be determined by such person or persons as shall be appointed by the aforesaid Master of the Horse.

*** *These Articles will continue in force for succeeding years, unless directed to the contrary by his majesty.*

✎ A slight alteration will be observed in the Eighth Rule, as to the place where the jockey is to dismount—this is made with the sanction of his Grace the Duke of Leeds, Master of the Horse to his Majesty.

Form of a Certificate of having won a King's Plate.

These are to certify, that his Majesty's Plate of a Hundred Guineas was won at _____ the _____ day of _____ 183 , by _____'s _____ horse called _____ A. B. Steward, _____ C. D. Clerk of the Course.

KNOT, THE. This bird, which frequents the fens, is said to have been a favourite dish with Canute, king of England; and Camden observes, that its name is derived from the monarch Knute or Knout, as he was called, which, in process of time, has been changed to Knot. These birds are caught in Lincolnshire, and other fenny counties, by nets, into which they are decoyed by stale birds, carved and painted so as to represent themselves, and placed within the range of the nets: their numbers are so considerable that Mr. Pennant states fourteen dozen to have been taken at once. They are fattened in the same way as the ruffs, and by some are supposed to excel that bird in flavour. The season for taking them is from

E. } *Lord Lieutenant
} of the County.

*To his Grace the Duke of Leeds,
Master of the Horse to his Majesty.*

[The signature of the Lord Lieutenant alone is sufficient, but that can seldom be obtained without first producing to him a certificate signed by the Steward and Clerk of the Course.]

N. B. The certificate, when properly signed, is payable at sight to the winner of the plate (or to any other person, if endorsed by the winner) at the office of the Clerk of his Majesty's Stables, in the Royal Mews, Pimlico.

The plates at Chester and Edinburgh, and the hunter's plate, at Ascot, being given from a different fund, the certificates are to be addressed to the Keeper of the Privy Purse, and presented for payment at the Duchy of Cornwall Office, Somerset House.

*** Since the alteration in the act of parliament respecting stamps for receipts, the Clerk of the Stables requires the person presenting a certificate for payment, to provide a receipt stamp of the proper value, which at present is *two shillings and sixpence*.

KNEE OF A HORSE, is the central joint of the leg, where the fore-thigh is united to the shank-bone. Its formation is of such strength, that a lameness, by twist, distortion, or any other injury, is hardly ever sustained in this part, but by the accident of falling; which frequently happens, and, if attended with a blemish, very much reduces the previous value of the horse. Loss of hair upon the knees, when not too severely affected, may be restored by a daily application of neat's foot oil. See **BROKEN KNEES**.

* If the Lord Lieutenant be *officially* out of the kingdom, the signature of the Vice Lieutenant is admissible. The certificates for the Ascot-Heath plates must be signed by the Master of his Majesty's Hounds, instead of the Lord Lieutenant.

By the stat. 4 and 5 Will. and Mar. 23. none shall keep any net, &c. for taking fish, other than the owner or occupier of a river or fishery : and the owner or occupier of a river or fishery, or any authorised by them, may seize them from persons using the same without consent.

By statute 5 Geo. III. c. 14. persons stealing fish from any river or pond, in a park or paddock, fenced in and inclosed; or from a garden, orchard, or yard adjoining or belonging to a dwelling house, or aiding or receiving, to be transported for seven years, on conviction, at goal-delivery.

For stealing fish in other inclosed ground, private property, forfeiture 5l. to the owner, or commitment for six months by one justice.

By the *black act* (9 Geo. I. c. 22.) it is made felony, under some special circumstances, to steal in a fish-pond. If any person shall unlawfully and maliciously break down the head or mound of any fish-pond, whereby the fish shall be lost or destroyed, or shall rescue any person in custody for such offence, or procure any other to join him therein, he shall be guilty of felony, without benefit of clergy.

Conviction. A conviction on this act (5 Geo. II. c. 14.) must shew that the fishing, &c. was without consent of the owner; and it must appear upon oath who was the owner. 4 Burr. 2279.

If a man is convicted of taking fish, without saying of another person, or in another person's pond, or without the consent of the owner, (or stealing Qu.) it is bad. Rex. v. Mallison, M. 32 G. II. 2 Burr. 679.

LEAM or LIAM. A line to hold dogs in, otherwise called a Leash.

LEAPING:—more fashionably termed JUMPING, is a very leading quality in a horse as a hunter. Leaping, in its general signification, extends to the two kinds, called flying and standing; a horse perfect in each, with good temper, and a fair portion of speed, is a complete or made hunter; and if he has a corresponding uniformity of figure, and excellence of action, both his reputation and worth become increased in proportion. There are very few horses of speed and spirit, but what become good flying leapers by a little practise in the field with hounds, which, indeed, is the only proper place to teach them; but it is not so with standing leaps, which should be taught coolly and calmly at the leaping-bar, and also in the field.

LEASH. A term used to imply the number three, as exceeding one, and not reaching two, brace; for instance, a brace of hares, a leash of pheasants, and two brace of partridges. Also, a leather thong or cord by which a falconer holds his hawk, or a coursier his greyhound.

LEGS. The legs of a horse are so material to graceful and expeditious action, that they become, at the time of purchase, objects of minute inspection: if too long, in proportion to the depth of the chest, and the length of the carcase, they may be considered a tolerable criterion of constitutional weakness, as few of this description are found equal to a constant repetition of even moderate work. Too straight in the lower part of the leg, with the hoof overhung by the fetlock, is an indication of stiffness and constraint in action; as, on the contrary, those who are exceedingly long in the lower joints, and whose pasterns extend the hoof considerably before the leg, with a palpable bend or flexibility in walking, and the heel nearly down to the ground, are mostly horses of speed, (so far as their strength will permit;) but they are in general weak in those parts, and there is always a well-founded fear of their breaking down.

LEGS, SWELLED, originate in various causes; but from none so much as a sizzly, viscid state of the blood, a laxity of the solids, a shameful neglect of stable discipline, or a great deal of work at one time, and no regular exercise at another. That swelled legs arise from different causes, is sufficiently demonstrated by the opposite state of their external appearance in the examination of different subjects; where the legs of one shall be found distended to the utmost possible extent of the skin, with a degree of tenseness from the knee or hock downwards, not submitting to pressure, and without the least cutaneous pliability whatever. These are the kind of swelled legs occasioned by stagnant fluids, originating in the sizzly and viscid state of the blood. When they are equally distended, but pliable in the skin, yielding to pressure, and resuming their previous extension, it may be justly concluded, they proceed from a laxity of the solids, and a want of regular exercise without, and manual labour (leg rubbing) within. Proceeding from whichever cause, they are productive of temporary anxiety; and the cause should be removed without delay. Bleeding, with evacuants, and a course of alteratives, will expeditiously



EXTRAORDINARY LEAP TAKEN BY COL. STANDEN

Art. by Col. Standen

See also the engraving in the same volume

quarter, 1 mile, 2 fur. 15 yds. Last mile and half, 1 mile, 4 fur. 18 yds. Last mile and three quarters, 1 mile, 5 fur. 160 yds. Two-mile Course, 1 mile, 7 fur. 85 yds. Four-mile Course, 3 miles, 7 fur. 24 yds. York Course is situated upon low ground, and, in consequence, becomes very heavy in wet weather.

Neumarket Courses.

N. B. 1760 yards are a mile. 220 yards are a furlong. 240 yards are a distance.

	Miles.	Fur.	Yds.
The Beacon Course is . . .	4	1	138
Round Course	3	4	187
Last three miles of B. C. . .	3	0	45
Ditch-in	2	0	97
The last mile and distance of B. C.	1	1	156
Ancaster Mile	1	0	18
From the turn of the lands, in	0	5	184
Clermont course (from the Ditch to the Duke's Stand)	1	5	217
Audley End Course (from the starting-post of the T. Y. C. to the end of the B. C.) about	1	6	0
Across the Flat	1	2	24
Rowley Mile	1	0	1
Ditch Mile	0	7	178
Abingdon Mile	0	7	211
Two Middle Miles of B. C. .	1	7	125
Two-year-old Course (on the Flat)	0	5	136
New ditto (part of the Bunbury Mile)	0	5	136
Yearling Course	0	2	47
Bunbury Mile	0	7	208

LESSES. The dung of a wild boar, bear, or wolf.

LETHARGY. "Sometimes (says Gibson) horses are seized with sleepiness in very great colds, especially those colds that have some degree of malignity in them; but this symptom generally wears off as the distemper abates. But a true lethargy seldom happens unless to horses that are old, or growing old, and to such especially that have been worked beyond their strength and keeping. I have known many horses seized with lethargic disorders after very hard labour, when there has not been sufficient time allowed for food and rest, by which nature has received such a shock, that some have died, notwithstanding proper applications have been made to recover them. Others have recovered with much difficulty; and, of those, some were not afterwards able to go through any fatigue.

When a horse falls into a lethargy, he generally rests his head with his mouth in the manger, and his poll often reclined to one side, which denotes great stupor and insensibility. As there is seldom any great pain, he will shew an inclination to eat, but is apt to fall asleep with the hay, bran, oats, or whatever else has been given him, in his mouth. These, indeed, he seldom chews, but swallows them down. Except he is roused, and his head kept moving, he presently drops asleep again; and, if a horse continues any time in this state, he falls into an atrophy, or universal decay, especially if his lungs, liver, or any other of the principal viscera be diseased, or if he has received any hurt on his head.

A lethargy in a horse may be cured, if he is not very old and past his vigour. It is always a good sign if he has a tolerable appetite, and so far retains his smell and taste as to eat up a mash with a relish, and without dozing over it; for, though he eat but little hay, if, at the same time, he drinks pretty freely, without slabbering, and lies down and rises up carefully, even though it be but seldom, some hopes may be entertained of his recovery. But if a lethargic horse does not lie down; if he is altogether stupid and careless, and takes no notice of any thing that comes near him; if he dungs and stales seldom, and even when he sleeps and dozes; his situation is bad. If he runs at the nose a thick white matter, it may relieve him; but if the discharge be a viscid gleet that sticks to his nostrils like glue, and if this becomes profuse, and changes to a ropy, reddish, or greenish matter, with an increase of the symptoms of stupor, it is an infallible sign that (as the name of this distemper imports) it will prove deadly.

As to the cure, if the horse be young, and this distemper arose either from catching cold in some damp place, or from any hard usage, there may be great hopes of his recovery, because the disease, in this case, is in some measure symptomatic. The right way is to begin with bleeding, but not in too great quantity; for lethargic horses are seldom able to bear the loss of blood, unless they be young and lusty. After bleeding, give the following drink, which consists both of pectoral and cephalic remedies; for, in some lethargic disorders, the lungs are also much affected.

Take of the leaves of Pennyroyal,
Coltsfoot,

Chamomile flowers, of each a handful;

Rue,

Hyssop, of each half a handful;

Liquorice root sliced, an ounce.

Infuse these in two quarts of boiling water, in a deep vessel, close covered; and, when it has stood to be cold, pour it off.

Also,

Take of Assa foetida,

Russian castor, of each half an ounce;

Saffron, one drachm.

Bruise the assa foetida and castor, and shred the saffron; then tie them in a rag, and let them steep all night in a pint of strong mountain wine, or in the same quantity of spirits of wine and water, about three parts water to one of the spirits.

In the morning give a pint of the first infusion, with a quarter of a pint of this tincture; the same quantity in the afternoon, and also on the days following, squeezing the rag with the castor and assa foetida in each dose, leaving it always to soak in the tincture till there is occasion to use it again, and that no taste or colour remains in it. The first three or four days let the horse have emollient clysters; for, in all these distempers, they are apt to be costive. These are best made of fat broth, or of the leaves of mallows and marsh-mallows, boiled in water or milk, with an ounce of sweet fennel-seed, adding half a pint of linseed oil, and the same quantity of common treacle, to three pints or two quarts of the decoction.

If the sleepiness wears off, and the horse begins to move with spirit and vigour, give him one of the following balls every morning fasting, for a fortnight or three weeks:

Take of Cinnabar of antimony,

Assa foetida, of each half an ounce;

Castor, in powder, two drachms.

Beat this mass into a ball with a sufficient quantity of oil of amber.

After the use of these, should the horse come to feed heartily, two or three mild purges may be proper, just such as will thoroughly open his body."

LEVANTER is a word very well understood on the turf, and means a person who does not pay his bets; but this is an evil which works its own cure, as Levanters soon become known, and consequently despised: they are not allowed to mix in

the betting stand or circle, and are shunned by all honourable men.

LEVERET. A young hare is termed a leveret till she is full grown.

LICE IN DOGS, TO DESTROY. See DISEASES OF DOGS, under the general head of DOGS.

LIFTING HOUNDS. Hounds are said to be *lifted* when they are taken by the huntsman from one point to another. For instance, if they have much difficulty in carrying the scent, or are a great way behind the fox, if the fox should be hallooed or seen at any particular spot, the hounds are immediately taken the nearest way to that spot, and there laid on the scent. This is termed *lifting*; but for a complete exemplification of the subject we refer the reader to FOX HUNTING.

LIGHT IN HAND. A horse is said to be light in hand, who, bearing properly upon his haunches, requires little or no assistance from the bit. Horses of this description are generally well formed in their fore-quarters, with a curved crest, carrying their heads well up, with long necks, high withers, and a commanding forehead. Those with short necks, thick shoulders, dull spirit, slow action, and the withers lower before than the spinal bone behind, are always of a contrary description; they bore along, invariably bearing upon the bit, and from that circumstance are said to be heavy in hand.

LIGHT CARCASED. The carcasses of such are flat at the sides, narrow in the chest, and gradually contract in circumference from the girth to the flank. Horses of this description possess, in general, a spirit so much beyond their strength, that they debilitate themselves so much by impetuosity, and unnecessary exertion, that, after a single day's hard work upon the road, or a severe chase in the field, they are not fit to be brought into use for a week after. They are always bad feeders; and it is an old maxim with the sporting world, "that those who won't eat can't work;" and this remark is literally just; they certainly cannot for any length of time together.

LIME TWIGS. Preparations of bird lime, with which almost all kinds of birds may be taken.

LOACH. This little fish is found in swift brooks among the gravel, or where there is a soil of mud and gravel together, with weeds, and in several of our rivers by the sides of sharp streams; it seldom rises to the top of the water, keeping at the bottom on the gravel, upon which it

feeds, and is on that account in some places called the groundling : it is frequent in the streams near Amesbury, in Wiltshire, where out of frolic the sportsmen swallow it down alive in a glass of white wine.

It is a slimy fish without scales perceptible to the naked eye, and of rather a long make ; the mouth is small, placed beneath, and has no teeth ; it is bearded like the gudgeon and the barbel, having on the upper mandible six small beards, one at each corner of the mouth, and four at the end of the nose ; the body is smooth and slippery, and almost of the same thickness ; the colour of the head, back, and sides, is in some white, in others of a dirty yellow, very elegantly marked with large spots, consisting of numberless minute black specks : the pectoral, dorsal, and caudal fins are also spotted ; the belly and ventral fins of a pure white ; the tail, where it joins to the tail fin, remarkably broad without any taperness ; the tail fin is broad and rather rounded. One of the largest ever heard of by Mr. Pennant, was four inches and three quarters in length, but they seldom exceed three inches. The flesh of the loach is singularly nutritious, and from that circumstance, and its being equally grateful to the palate, it is recommended to the sick. The females during summer are generally full of spawn. These fish are to be taken with a very small red-worm, the bait touching the ground. The loach is used as a bait for other fish, and for eels perhaps it is the best.

LOCKED JAW. A tetanic or spasmodic disease, to which horses of all ages are liable. It is more frequent in hot than in cold climates, and the symptoms of it are there more severe. The most common causes of locked jaw are, punctures of different tendinous parts, attended with some injury of the nerves supplying those parts, and producing an universal irritation of the nervous system, accompanied with a greater or less degree of spasm in the whole of the muscular powers. The operations of nicking and docking also occasion it, more particularly the latter, and these especially in frosty or other severe weather. Other causes are, cold applied to the body when hot ; journeys in bad weather, after having been indulged a long time with a hot stable and clothing. Horses pricked in shoeing are also liable to locked jaw. From the sympathy known to exist between the stomach and the brain, botts and other

worms have been supposed, sometimes to give birth to this disease, by adhering to and wounding the nervous coat of that organ. But locked jaw will frequently occur independently of any apparent reason. It sometimes proceeds to a violent degree very suddenly ; in other instances very gradually only. Previously to an absolute state of locked jaw, some rigidity is to be perceived in the muscles of the neck : as this proceeds, the extremities begin to undergo a similar effect ; the legs become stiff, and are drawn much apart : the ears and tail are erected, the nostrils expanded, and the eyes fixed, displaying, in appearance, an unusual and considerable fire and animation. Much difficulty seems to be experienced in deglutition, the abdominal muscles are strongly affected with spasm, and the body is drawn or *tucked up*. The bowels are generally obstinately costive, and the respiration is usually more or less influenced by the disease. In all spasmodic affections of the muscles, acute pain is experienced, causing an irregular state of the pulse. There is a deficiency in the secretion of the urine in this disease, but no diminution seems to take place in the appetite.

There are but few veterinary practitioners, probably, who can boast of having been very successful in the treatment of locked jaw. Though they may be well acquainted with its most prevailing symptoms, the method of cure yet remains an object highly worthy of the exertions of laudable enquiry. Perhaps some future period may give to the world a certain remedy for this dreadful malady ; and such an event would be not less desirable to human than to veterinary medicine.

For the cure of locked jaw, the greatest extremes of heat and cold have been recommended ; such as supporting a high state of perspiration in the animal for several hours, by covering the body in blankets, &c. or immersing the patient for a length of time in snow or cold water. We have heard of advantages attending both these methods, and we have had a few opportunities of giving each of them a fair trial ; not, however, with that benefit that we could have wished. It will be here necessary, notwithstanding, to point out the most probable means of success. We are convinced, that, in cases of locked jaw, opium, in large doses, is the remedy on which our hopes are principally to be founded : it may be given, indeed, in very large quantities in

all spasmodic diseases, without being attended with those hurtful consequences it is commonly accompanied with on other occasions. The doses ought to be repeated as the power of them appears to wear off. In the infancy of the disease, where the pulse will justify it, by indicating an inflammatory propensity, bleeding is required; but, without this precaution, the practice is now generally considered as improper. A costive state of the intestines will certainly tend to aggravate the complaint; so that, by relaxing them, we may probably promote a relaxation in other parts. Therefore, when we are not prevented by the closeness of the jaws, or the difficulty of deglutition, and when costiveness exists, the following drench may be given every six hours, until it operates.

Take of Thin gruel of oatmeal, one pint;

Castor oil, or

Olive oil, twelve ounces;

Glauber's salt, four ounces.

Dissolve the salts in the gruel, whilst warm, and afterwards mix the whole into a drench.

Spasmodic diseases are such as allow the loss of but little time; of course, before we can possibly perceive the consequence of this aperient treatment, it behoves us to employ, in the mean while, other useful medicines.

Let the following ball be given every three or four hours, or as often as the state of the case may demand.

Take of Purified opium, three drachms;

Salt of hartshorn,

Camphor, of each half an oz.

Syrup, sufficient to make a ball.

We have already remarked, that costiveness is to be avoided as much as possible: laxatives, independent of other utility in the above complaint, will beneficially counteract the astringent quality of opium. So far we have been treating of the disease as in its most favourable stage. When the jaws are already so far closed as to prevent the admission of medicines, the only means left are introduction of them in clysters. Of these, a laxative one, as the following, may be given, at the discretion of the practitioner.

Take of Thin gruel, four quarts;

Common salt, six ounces;

Olive oil, or

Hog's lard, four ounces.

Dissolve them together, and administer in the usual manner.

We cannot precisely ascertain the quantity of the opiate that can be administered in this way to the horse with safety: we conceive, however, that it is pretty considerable. The following may be injected without danger every three or four hours.

Take of Oatmeal gruel, one quart;

Purified opium, six drachms;

Spirit of hartshorn, one ounce and a half;

Camphor (previously rubbed into a liniment with a little spirit of wine), one ounce.

Dissolve the opium first in the gruel, and mix the whole well together.

It is necessary to remark, that this composition can prove but of little utility during the active operation of the laxative clyster; and, of course, it should be contrived that these very opposite remedies interfere as little as possible with each other.

Notwithstanding, we have not yet been lucky enough to witness the success of the application of cold water to the surface of the bodies of horses labouring under locked jaw, our hopes of its beneficial tendency are still sanguine; and we are induced to think the more favourably of it from the encouraging reports communicated to us by others. In similar diseases of the human subject, its use has been attended with the most beneficial consequences. Immersion in cold water is readily accomplished; but, perhaps, the most efficacious method would be that of pouring large streams of water on the animal. This process should be continued for a considerable time, perhaps ten or fifteen minutes; and, should a remission of the spasms ensue, it will afford us no little encouragement in our pursuit; and, in this interval of ease, a favourable opportunity will present itself of passing medicine by the gullet. When the complaint returns with any degree of violence, the cold water is to be repeated: the longer and the more frequent the remissions become, the nearer, of course, will be the prospect of cure. Immediately after the application of the cold water, let the skin undergo a diligent and general friction until it is dry; let the animal be then moderately clothed. We have already hinted, that horses, suffering from the above disease, have generally the inclination, though perhaps they have not the power, to eat: they are, therefore, to be supported with substantial gruel, given, when incapable of swallowing, by the anus. If this circumstance is suffi-

ciently attended to, the animal may be kept alive many days.

Here, however, a question occurs to us—Whether, in any case of locked jaw, either in the human or brute species, the throat is *absolutely inaccessible to nutritious fluids*? We think not; but that milk, gruel, broths, and even porridge, might be conveyed by injection between the intervals of the teeth, and drawn in, in some quantity, by the patient, provided the power of swallowing remain.

We have here endeavoured to describe such means of relief as have appeared to us to offer the greatest prospect of success. All rational experiments towards the removal of a malady, usually fatal in its termination, are certainly praise-worthy; and he who is the most fortunate in his researches will have a weighty claim indeed on the gratitude of society.

The introduction of mercury into the system, in persons affected with the spasmodic diseases, by frictions, on different parts of the body, with strong ointment of quicksilver, so as to produce and support a degree of salivation, has been sometimes attended with the happiest effects. We have never heard of this experiment being tried on the horse, but certainly it deserves the practitioner's attention.

The warm bath, in spasmodic diseases, has many advocates: perhaps it might be beneficial, if it could be used to that extent with the horse which it admits of with the human subject. When locked jaw is conjectured to have arisen from the operation of docking, it is usually considered prudent to remove another portion of the tail; afterwards applying such dressings as are most likely to hasten a free discharge of matter from the stump. The same dressings may be recommended when nicking is suspected to be the cause of the disease, and the extremity may be also surrounded with a large poultice. Few owners of horses, we fancy, would allow of a total amputation of the tail, and, probably, even that would not be followed by the slightest benefit. Where the disease arises from the foot having been pricked in shoeing, the wound should be opened freely to the bottom with a drawing knife; the actual cautery may then be applied, and the part scalded with a little turpentine as a dressing. All punctures should be laid tolerably open, and digestive applied; and, where an inflammation and swelling attend, fomentations are requisite. Let it be remembered, however, that these topical means

alone are never to be depended upon; but must, in locked jaw, be invariably assisted with the remedies heretofore mentioned. Should it be imagined that botts, or other worms, lodged in the stomach or intestines, have produced the disease (a circumstance which we are apprehensive is rather difficult to determine), a drachm of calomel may be given in one of the balls, or an ounce of the strong mercurial ointment may be dissolved in the first anodyne elixir.

In conclusion, we may observe, that we have witnessed the recovery of a few mild cases of locked jaw, in which scarcely any means of relief have been employed, except turning the horse into the cold air: indeed, such cases so frequently terminate fatally, that the owners of horses thus diseased generally leave them to their fate. In the above instances, considerable rigidity existed in the muscles; the act of deglutition was slightly obstructed, but not prevented; and the jaws were only partially drawn together. On these occasions, the complaint could seldom be traced to any particular source.

LOOSE-JOINTED. A horse is said to be loose-jointed, when his pasterns are so long as to let his hoof come considerably from under the perpendicular position of the fore leg, so that the heel is exceedingly flat, and the hinder part of the fetlock joint, by a kind of elastic bend or drop, seems nearly to touch the ground. Horses of the blood kind have frequently this failure in their formation: most of this description have the first defect accompanied by a second, which is a long back, and consequent weakness of the loins: these, in the aggregate, constitute a complete loose-jointed horse.

LOUSINESS. It is a very common case to see horses, oxen, cows, and other animals, affected with lice, or other animal-culæ, particularly those which have been fed upon barren pastures, or kept in a state of starvation, &c.; because, such keep diminishes the vital heat, and reduces the strength of the body. As a proof of this, it will be observed, that lice are never seen amongst horses, or any other animals, which are duly fed, and judiciously taken care of. Poverty produces many diseases of the skin in horses and other animals, such as lice, the mange, farcy, &c. However, this disorder is extremely easy to cure in brute animals, since it requires nothing more than to pay attention to good and judicious feed-

ing, and cleanliness. And when this is thought, or found, ineffectual, corrosive sublimate, (*hydrargyrus muriatus*) dissolved in a strong infusion of tobacco, in the proportion of a drachm, to two quarts of the infusion. Or, cantharides, half an ounce; hellebore, two ounces; infuse the whole in two quarts of tobacco water.

LOWBELL. The use of this instrument is not likely to be conducive to the amusements of the sportsman of the present day; but as it was formerly used by sportsmen, and afterwards was employed by poachers; and as it is occasionally noticed in some of the statutes relative to the preservation of game, a few words upon the subject may be interesting, if not useful. The lowbell and the hand net were used in conjunction. "With these instruments (says a writer) birds are taken in champaign countries, as also in stubble fields, especially that of wheat, from the middle of October to the end of February, and after this manner:—When the air is mild, about nine o'clock at night, the moon not shining, take the lowbell, which should be of a deep hollow sound, and of such reasonable size as may be well carried in one hand; toll this bell just as a weather sheep does, while he is feeding in pasture ground: you must also have a box much like a lanthorn, about a foot and a half square, big enough to hold two or three great lights; let it be lined with tin, and one side open to send forth the light; fix this box to your breast to carry before you, and the light will cast, at a great distance before you, very broad, by which means you may see any thing on the ground within the compass of the light, and consequently the birds that roost therein.

For the taking of them, you are to have two men with you, one on each side, walking a little after you, that they may not be within the reflection of the light that the lanthorn or box casts forth; and each of them should be provided with a hand net, about three or four feet square, which must be fixed to a long stick, to carry in their hands, so that when either of them sees any birds on his side, he is to cast his net over them and take them up, with as little noise as may be; and let him that carries the light and lowbell be the foremost to take them up, without being too hasty for fear of raising others.

The sound of the lowbell causes the birds to lie close, and not to stir while you lay the net over them.

If you would practise this sport by yourself, carry the lowbell in one hand, and in the other a net, about two feet broad and three long, with a handle, which is to lay upon them as you espy them. But some persons, instead of holding the light to their breasts, tie the lowbell to their girdle, and their motion causes the bell to strike; and the light they carry in their hand, extending their arm before them; but then their lanthorn or box is not so large as that hung at the breast."

LUNGS consist of two lobes that fill up the greatest part of the chest, having the mediastinum between them. In some quadrupeds each lobe is subdivided into several small lobules, in the same manner as their livers, but not so much in a horse as in other animals that have a greater variety of motions. Gibson supposes this may be the reason why horses' lungs are so apt to be inflamed with hard exercise, and in consequence of cold. The *aspera arteria*, trachea, or wind-pipe, descending along the fore part of the throat, is branched out into the lungs. This pipe is composed of circular rings of cartilage or gristle, which surround it for about two thirds of its circumference; the back part being plain, smooth, and even, that it may not incommode the *œsophagus* or gullet, which passes down immediately behind it, and which it ties. At its entrance into the chest, it is divided into two principal branches, called its *bronchia*; and is afterwards subdivided into innumerable other branches, the extremities of which compose an infinite number of small cells or air-bladders, which, with the ramifications of the veins, arteries, nerves, and lymphatics, make up the whole mass or substance of the lungs. These cells or vesicles are always filled with air, and distended in inspiration, and empty or sunk in expiration; and receive from the blood-vessels a quantity of lymph, or perspirable matter, which not only keeps the lungs from drying, but makes a large and necessary discharge from the blood. The lungs may justly be reckoned among the principal organs of the body, if not the chief of all; as they are adapted in every respect to receive air, without which, we cannot support life one moment; and are no less fitted to communicate oxygene to the blood by their continual action, and also to make such discharges of aqueous vapour and mucus as are necessary for the continuance of life. The

lungs are also the chief instruments of the the effluvia through the nose, contribute voice in all creatures ; and, by drawing greatly to the sense of smelling.

LURCHER. The dog passing under this denomination is fast fading from the face of nature ; and in all probability will, at no distant period, be utterly extinct. The breed, it is true, might easily be revived were it totally extirpated ; but as they are considered disgraceful to the sportsman, and cannot fail to attach suspicion to the lower orders, little doubt can be entertained that they will shortly disappear altogether.—The lurcher is said to have been originally produced from a cross between the greyhound and the shepherd's dog, and its appearance would certainly justify such a conjecture. Those who have seen the rough or wiry-haired greyhound, so common in many parts of the north of England, will have a tolerably correct idea of the figure of the lurcher, by imaging to the mind an animal similar in form, but only about two-thirds or three-fourths the size ; in fact, the lurcher may be regarded as a smaller kind of greyhound. This dog has not, as some have hastily supposed, a good nose, or, in other words, exquisite sense of smell ; on the contrary, like all narrow headed individuals of the dog tribe, it is deficient in the faculty just mentioned ; and as if perfectly conscious of the defect, it endeavours to make up by artifice and cunning, its evident want of olfactory nerves. The lurcher may be regarded as a most accomplished rabbit-catcher ; and for this purpose he adopts most extraordinary stratagems. He skulks round the borders of the warren ; and if he espies any rabbits, he does not run at them (unless they are at a considerable distance from their burrow), but hides himself from their view, and, by crouching and creeping along, endeavours to place himself between them and their hiding place, and thus cut off their retreat. The moment he has completed this preliminary manœuvre, he shews himself, singles out his victim, and seldom fails to secure it. It will be necessary perhaps to remark, that the rabbit would be very likely to beat the lurcher in speed, were the race to the burrow distant not more than two hundred yards, and no intervening obstruction offered to its progress ; but the dog appears so well aware of this circumstance, that if there seems the least chance of his game thus escaping, he instantly ceases to follow the rabbit, and strains every nerve to throw himself between it and the hole, or at least to reach the hole before it. A rabbit seems to lose its courage and confidence, when it perceives its retreat intercepted, and is captured with little difficulty. The lurcher pursues the chase in silence, and carries the prize to his master : should he be met on the road by a stranger who attempts to rob him of the fruit of his labour, he will seldom relinquish it without a stout resistance, and till he has made the best defence his strength and courage will allow. The lurcher is very dextrous in taking young hares ; and though he is seldom equal to the capture of old ones, yet leverets, about three parts grown, rarely escape him : in this pursuit, as well as that of the rabbit, he resorts to every imaginable stratagem.

For the purposes of the poacher the animal in question is admirably calculated. In nocturnal expeditions, where hares are to be captured, the lurcher appears perfectly to understand the business upon which he is employed ; and will run hares in silence and with almost unerring certainty into the murderous engines prepared for their destruction. In fact, the lurcher is one of the most sagacious of the dog tribe ; and it is astonishing to what a degree of perfection some of these have attained by the instructions of an adept in the art of poaching ; but it is a mistaken notion, which some have adopted, in supposing that he is, like the spaniel, "crouching, humble, and obedient;" on the contrary, though obedient to his master, he may nevertheless be considered as ill-tempered and snappish ; but it must be allowed that he imbibes instruction in a shorter space than would readily be believed, and soon conforms himself to the various motions, manners, and pursuits of the person who commands him.

LURCHER. The name of a horse of some recent celebrity ; he was the property of Mr. Rider ; was got by Dungan-non, dam by Vertumnus. In 1792, when three years old, he won a 50l. plate at Ascot Heath, beating seven others. At Stockbridge, a subscription of 20gs. each, (ten subscribers) beating Hamlet, St. George, and two others. At Winchester, a sweepstakes of 20gs. each, eleven subscribers ; and at Lewes, a sweepstakes of 10gs. each, ten subscribers. He was then purchased by Mr. Wilson, in whose possession, 1793, when four years old, he won at Newmarket a sweepstakes of 500gs. each, from the Ditch-in, beating Kitt Carr and Ormond. On the Saturday in the same week, he won a sweepstakes

of 200gs. each, half forfeit ; beating Lord Clermont's Pipator. Lord Foley's Vermin paid. Second spring meeting, he beat Lord Clermont's Speculator a match across the Flat, 200gs. each. In 1794, at the Craven meeting, Newmarket, he won the first class of the Oatlands stakes of 50gs. each (twenty-one subscribers), half forfeit, beating thirteen others, with the odds of nine to one against him at starting. For the main of the Oatlands, first spring meeting, he beat Lord Grosvenor's Druid, 200gs. each, Ditch-in. Second spring meeting, he received 150gs. forfeit from the Duke of Bedford's Teucer ; after which he appeared no more upon the turf.

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MADNESS IN DOGS. See DISEASES OF DOGS.

MADNESS OR FRENZY. A term somewhat indefinitely applied to those accidents or diseases of brutes which produce an irregular action of the brain. In the human subject, madness usually denotes mental derangement ; and as, in brutes, any morbid action or irritation on the brain is known by actions inconsistent with their usual habits, or the law of self-preservation, this analogy has been assumed by the old writers on farriery. Gibson says, that "madness or frenzy in a horse may be caused first of all by the excessive hurry of the blood in a legitimate simple fever : but that symptom will very readily abate, by those things that are proper to assuage the violence of that disease. Secondly, blood or matter

collected upon the brain, or the membranes that involve it, may occasion a frenzy, whether that proceeds from wounds or bruises, or from a distraction or rupture of the vessels, when they have been over full and distended beyond measure ; or when there is any foreign substance grown within the skull : but then a frenzy arising from such causes will probably end in sudden death.

"But that sort of frenzy, which in a more peculiar manner deserves the name of madness, is what may happen without the concurrence of any other disease, and is most likely to proceed from excessive lust, occasioned by full feeding, either in a horse or mare, and when they are restrained from copulation. But this may be cured by bleeding, purging, with the concurrence of a low diet," &c.

Bartlet says, "a frenzy may follow upon the bite of any venomous creature. The first intention in the cure, after the bite, and before the horse is mad, is to prevent the poison mixing with the blood. This possibly might be effected, if the part would admit of being instantly cut out with a knife, that cupping glasses might be applied, to empty the vessels, the wound being afterwards cauterized with a hot iron. The surrounding parts should afterwards be well bathed with salad-oil, and the sore dressed once or twice a-day with mel ægyptiacum. It is necessary also, that it should be kept open for forty days at least, with a piece of sponge or orrice-root smeared over with the precipitate ointment, or that prepared with Spanish flies : these seem to be the chief external remedies to be depended on. Internally, for bites from vipers, may be given cordial medicines, such as Venice treacle, and salt of hartshorn, an ounce of the former with a drachm of the latter, every night for a week ; or, where it can be afforded, a proportionate quantity of the famous Tonquin remedy of musk and cinnabar, so much recommended in bites from infected animals."

MAIN OF COCKS. See **COCKING.**

MALLENDERS. A large flat scab, or more properly an accumulation of eschars seated at the hinder part of the fore-legs, directly behind the knee, just where the back sinews have their insertion at that joint. They are seldom seen with horses that are properly managed, but merely with those of an inferior description, that are little attended to. If discovered, and proper means of counteraction adverted to in their early state, little or no inconvenience ensues ; but if suffered by time to become inveterate, with deep-seated cracks, from whence oozes a greasy kind of ichor, with bristly hairs making their way through the hardened scabs upon the surface, they are productive of much trouble before a perfect cure can be obtained.

Those horses having the greatest quantity of hair upon their legs are the most subject to this malady, where it remains a long time obscured from the eye. If the part inveterately affected is covered with hair, either totally or partially, it must be taken off as close as possible, before any attempt at cure is made ; that done, a patient fomentation of hot gruel, a decoction of linseed, or mallow roots and leaves, should be persevered in for a quarter of an hour daily, letting, however,

the process of soft soap and warm water be adopted on the first day, continuing one of the before-mentioned fomentations every day after. When the scabs or eschars are completely softened, got loose, and begin to exfoliate, the parts may be well impregnated with camphorated spermaceti liniment every day after the fomentation ; but not before the part is made properly dry to receive it.

MANEGE. Manege riding is the science whereby you become acquainted with, and learn, the superiority you have over the horse, by a proper correspondence of the hand—teaching the effect and power, every variation of situation and aids produce, with the theory and knowledge of dressing horses—improving your horse after what manner you please, rendering him obedient to the most delicate touches, riding him with the greatest ease and exactness, and making him display himself in the most elegant attitudes, and move either forward, backward, or sideways.

It is evident this style of riding is not suitable to those who want to trot at the rate of from twelve to sixteen miles an hour ; or gallop at the rate of twenty. No wonder, then, that it should be so little sought after, and the preference given to the common mode of riding.

Nevertheless, the study and knowledge of the manege has many advantages : for you are not confined to ride in the manege style when you find it most convenient to ride in any other : and certainly, if you ride fast, long distances, or a hunting, the manege style is not calculated for your own ease, or that of the horse. But whenever you adopt the proper style for these extended paces, and suffer the horse to take a support and ascendancy of the hand, you can, when you find it necessary, more readily recover the superiority of the hand than those who are totally ignorant of the science. Many of these you see pulling and labouring with all their might, to no effect ; and frequently exposed to imminent danger, from not being able to manage their horses ; and this they never attribute to their want of skill, but to the hardness of the horse's mouth.

Since, then, I allow the manege is not the style of riding for travelling, hunting, or racing, of what service can it be to the generality of persons whose pursuits tend that way ? I answer, much advantage is to be derived from it ; because the manege being the foundation and groundwork of all good riding, you will only adopt the

convenience of one, and reserve the excellence of the other, by which you acquire the greater security, and become the more perfect horseman.

We are often told the horse reared, and the person fell off behind, that the horse might not fall backwards on him ; but the occasion of the horse's rearing is not given : perhaps the severity of the rider's hand was the cause. But, admitting fright, or any other circumstance, might be the cause, the person seldom allows the impropriety of his riding ; which, under such circumstances, might increase his danger, or have occasioned the disaster.

Therefore, by a scientific knowledge of riding, you are guarded against the several contingencies that may unexpectedly happen, and are deterred from running into dangers which ignorance but too frequently incurs. You have likewise the advantage of improving such horses, that come into your hands, which are awkward from defective breaking, or bad riding ; and, I believe, most persons feel an extreme pleasure in the improvements they make ; as it is a confirmation of the goodness of their hand, and a proof of their abilities.

On the Seat. The seat is the conformation of the several parts of the horseman's body, agreeable to the position or manner the horse works in.

For instance, if a person was placed in what I shall call the fundamental seat or medium position (which will be first described), and the horse was to work in a bent position, or on a circle, the balance would be disturbed.

Likewise, if the horse passages, or works sideways, the balance would be endangered, or lost.

When a horse also plunges or kicks, if you have not a strong muscular hold with your legs and thighs, assisted by a corresponding motion or exertion of the body, you will be thrown from the saddle.

Thus the balance is maintained by as many different positions as the horse has capacity to work in ; and the violent exertions of the horse are repelled or counteracted by muscular strength and activity in the rider. Hence, a person may be an excellent horseman, though, for want of muscular strength and resolution, unfit to contend with obstinate, resolute, and vicious horses ; and a person of firm nerves and resolution, in the habit of riding, may contend with a vicious horse, and, where resolution only is wanting, will succeed ; but where skill and address

are required, most likely he will fail : success, in these cases, inducing many to imagine themselves very capital horsemen.

The fundamental seat is that medium position from which all others proceed, and in which the rider sits when the horse works straight, *i. e.* not only going straight forward, but without any bend in the position of the horse.

In describing this, I shall divide the horseman into three parts, and explain their different functions.

The first are the thighs, from the fork to the knees. These, at all times, have hold of the saddle, and, by their muscular exertions, contribute also to keep the body equipoised.

The second are the legs, from the knee downwards. These are auxiliaries, and, occasionally, strengthen the hold of the thighs by a grasp with the calves. They likewise request, aid, support, and chastise the horse.

The third is the body, from the fork upwards, which must always be in a situation to preserve the balance, and take the corresponding motion.

The thighs, to have an effective hold of the saddle, must be turned inward from the hips, so that the hollow and muscular part of the thighs may lay smooth and flat to the saddle. The knees must be stretched down and kept back, so as to place the thighs about twenty-five or thirty degrees short of a perpendicular.

This will occasion the rider to sit on his fork or twist, which he should do, and not on his breech—the knee is to be bent, so that the toe hangs perpendicular to the knee—the legs are to hang near the horse's sides, but not to touch—the heel is to be sunk as low as possible, and the toe raised. This will give firmness and strength to the muscles of the legs and thighs.

The body must be upright, and not have the least propensity to drop forward, which, from the situation I have placed the thighs in, it will do, if the loins are not well bent, making the back very hollow, and the shoulders well thrown back, and the chest open :—the head must be upright and firm—the arms, from the shoulders to the elbows, should hang in a perpendicular situation—the elbows bent, so that the left hand should in general be situated about three inches above the pommel of the saddle—the arm, above the wrist, may lightly rest against the

body—and the wrist so bent, that the thumb being upwards, resting on the first joint of the fore-finger, may point betwixt the horse's ears;—the right hand, holding the whip, is to be situated a little lower than the left, not to obstruct the operation of the bridle.—If you sit in the manner above described, you will observe the nose, the breast, the knee, and toe, will form a perpendicular line; the shoulders, elbow, and heel, will likewise be in a perpendicular direction. When the rider can see any part of his foot, he may be assured he is not in the position above described:—the sight of the foot should be obstructed by the knee.

To acquire the true balance in the position directed, I recommend the practice on circles, or what is called the longe; beginning on large circles, and an easy, gentle trot, by which the horse will be so little bent, as scarcely to make a perceptible alteration in the position I have laid down as the fundamental one; but as the circles are contracted, and the pace extended, it will be necessary not only for the body to lean with the horse, but likewise to bend, or be turned in the same direction as the horse's head, which, of course, will be bent a little within the circle: this may be called the first variation. Be mindful to work equally to both hands, and not to have any stirrups till you have acquired a true balance without them.

When the stirrups are first used, they will be found an incumbrance rather than any assistance, and a new difficulty will occur, namely, the keeping the foot in the stirrup. This must be surmounted by practice, observing to bear no more than the weight of your foot in the stirrup, which must be placed under the ball of the foot, and the plying of the instep to the action which the body receives, will keep it there. Till you have acquired this play of the instep, you will find, if your toe be too forward, the stirrup will fall to the instep, and if too back, you will lose the stirrup; but when the foot is in its proper situation, if the toe be raised, the stirrup will not immediately depart from it.

Crave no assistance from the reins to support the balance—let the hand be fixed, and the reins of such a length as to feel and support the horse, but never to hold on.

On the Hand and its Accompaniments. The generality of persons are very desirous of obtaining a strong and firm seat.

But the hand, take it in whatever point of view you will, is the excellence of horsemanship. In violent contentions with the horse, the hand deprives the horse of one half of his exertions to throw the rider; otherwise it would be impossible to keep on the back of some horses. In vicious restiveness, the hand is your whole security; it baffles every intention of the horse to foil the rider, by crushing him against carriages, rails, walls, &c. By a judicious use of the powers of the hand, you out-manceuvre every effort of the horse, and subdue him. Thus far your safety depends on your hand.

It may not be improper here to observe, that horsemen (by which I mean those who ride scientifically) always ride with the curb-rein. This and the following is a discrimination, that, perhaps, some of my readers have noticed, that, when an awkward horseman has hold of the curb-rein, and, by too severe a hand, prevents the horse from standing quiet, or moving forward, the good-natured spectators will desire the gentleman to loose the curb, and take hold of the snaffle. Now, this does not imply that the gentleman was wrong, but that he cannot ride sufficiently well to be safely entrusted with the curb-rein.

The method of holding the reins, is that wherein the little finger separates the curb-reins, and the second finger the bridoon-reins. This method is best calculated to ride the united airs or manege lessons, because the bridoon rein is easily detached from the left hand, the reins of the bit shifted to the right hand, and the bridoon to the left, for the purpose of handily changing the air from right to left.

Observe, the whip or switch never departs from the right hand (except while mounting or dismounting); the knuckles are carried upwards, unless you carry your whip erect, for which purpose the thumb will then be carried upwards.

Separating the reins, on several occasions, is very necessary. Two hands can execute more than one; consequently, when a horse refuses obedience to one hand, you take two: hence all young, raw horses are rode with two hands. Lessons for the instruction or improvement of horses, manege airs, or whenever you want to perform to the utmost of your own or horse's ability, you use both hands. You seldom have occasion to take more than one rein in the right hand, which, if a single-reined bridle, you cannot mistake;

but when it is a double-reined bridle, remember you take the right rein only of the bridoon or snaffle in the right hand.

I now come to the operation of the hand ; perfection in which is the greatest attainment in horsemanship, and the most difficult to describe.

And first, the hand being connected to the reins, the reins to the bit or bridoon, the bit operating on the bars in the horse's mouth, the bridoon or snaffle operating on the lip ; you cannot move the hand, nor scarce a finger, but the mouth is more or less affected thereby, according to circumstances, as will appear hereafter : this is called the *correspondence*.

There are many properties requisite to constitute a good and masterly hand. I call that a masterly hand, which, being not only well formed in itself by tuition, and riding well-dressed or manege horses, will make the rude, untutored mouth partake of the sensibility of the hand, which, in other terms, is dressing the horse : for, since the best dressed horses, when rode by heavy, insensible, or uninformed hands, of necessity depart from their excellence, and become as heavy and stupid as the hand that rides them : so may the tutored hand (not of necessity) depart from its properties, and conform itself to the heaviness and stupidity of the horse's mouth. Hence it frequently happens that horses, which please their owners very much at first, so alter in process of time, from the bad riding of themselves, grooms, or stable-boys, that they are under the necessity of parting with them ; while horses that are properly rode, improve and please better.

If the hand is held steady, as the horse advances in the trot, the fingers will feel, by the the contraction and dilation of the reins, a small sensation or tug, occasioned by the measure or cadence of every step. This sensation or tug, which is reciprocally felt in the horse's mouth, by means of the correspondence, is called the *appui* ; and while this *appui* is preserved between the hand and mouth, the horse is in perfect obedience to the rider, the hand directing him with the greatest ease, so that the horse seems to work by the will of the rider, rather than the compulsion of the hand.

The hand, for preserving a medium effect on the mouth, is to be only half shut ; the knuckles next the wrist are to be nearly open. By this means the hand, without moving, can give liberty or restriction, by bracing the muscles, or open-

ing and closing the fingers. This is demonstrable by only placing a rein, piece of tape, or string in your left hand, as directed. Rest the hand on a table, and, with the other hand, stretch the rein on the table as far as the liberty of the left hand will admit ; then place the thumb of the right hand on the rein, and, by closing the left hand, you will be able to draw three inches of the rein from under the right thumb.

This shews the hand possesses a considerable power, independent of other aids or assistances, more than sufficient to controul or direct a horse that is termed broke or obedient.

Now the correspondence, as we term it, when we speak of the effective communication between the hand and mouth ; the *appui*, when we speak of the quality or strength of the operation in the mouth ; the support, when we speak of the effect the hand produces in the position or action, are always to be maintained in the manege, or military riding, and all united paces ; and without which a horse is under no immediate controul, as we find in the extended gallop or full speed, where it may require a hundred yards to pull your horse together before you can stop him.

The correspondence being comprehended, the power and effect of the hand, by practice, will soon be felt and discovered. For instance, the hand collecting the reins supports the horse ; the legs press the action ; the action, by a proper correspondence, produces the *appui* ; the *appui* will be strong or light, according to the action or position the horse works in. If it is heavy, from the head being carried too low, and the horse not sufficiently united, raise the hand, and let the fingers, by moving, rather invite than compel the head to rise ; the legs, at the same time, pressing the haunches under ; by this means the horse will become more united, and the *appui* will be lightened. Should the hand be too straight, or confining to the horse, which it may be, though it does not pull half an ounce, as thus, your collecting the reins to unite the horse, and the horse freely uniting himself, becomes so balanced on his haunches, that he cannot, while your hand supports him thus, though you do not pull in the least at him, disunite himself, nor advance one step ; and, should you press him without yielding or dropping your hand, you would compel him to rear.

As the situation of the hand, in point

of elevation, so powerfully operates on the mouth, that every quarter of an inch has a perceptible effect; so has the situation of the hand if carried to right or left. But, to avoid moving the arm or hand as much as possible, the motion of the wrist will produce such positions of the hand, as, being accompanied by the corresponding aids of the body, &c. will effect whatever you require from a proper dressed horse.

Aids are certain positions of the hand, body, legs, and sometimes the switch or whip, which direct the horse agreeable to your will; the hand being the principal: the others are called accompaniments, which give greater power and efficacy to the hand; therefore, as I describe the position of the hand, I shall also describe the accompanying or corresponding aids of the body, legs, &c.

The first position of the hand has been sufficiently described already; it is the thumb upwards, the little finger downwards, so that you can just see the ends of the fingers. The aids applied to this position of the hand, are such as effect the action and position of the horse, as raising the head, working the croup in, &c. &c.

The second position of the hand directs the horse to the right, for which purpose, turn the little finger to the right, the thumb to the left; the nails upwards. This position of the hand will carry the operation of the reins nearly three inches more to the right, by which the left reins will press the neck, and the right reins will be slack. Horses properly broke obey this pressure, and the pressure of the left rein turns the horse to the right, and the right rein directs him to the left. To give greater efficacy to this position of the hand, the body aids by turning to the right; and, if necessary, likewise inclines. The right leg aids the croup, by bending the knee and pressing with the calf of the leg.

The third position of the hand is the reverse of the second, consequently directs the horse to the left; turn the little finger to the left, the thumb to the right, the back of the hand will be upwards. This will carry the operation of the reins to the left, the right reins will press the neck, and the left reins will be slack. The corresponding aid is turning the body to the left, and closing the left leg.

Whether you wheel to the right or left, let the aids of the hands, body, and leg, exactly correspond, and practise as much

to the one hand as the other. I advise to practise slowly at first: a proper restriction in the fingers, and less aid will be required; but when you turn quick, the aids must be proportionably stronger.

Remember, as the horse arrives at the situation you intend him to halt, whether it is a wheel, which is a quarter circle; about, which is half a circle; or about and about, which is a whole circle; the hand, body, and leg, must resume its proper straight position; the hand dropped, and the fingers eased, that the horse may stand quiet.

In wheeling the horse on his fore feet, the hand has to support and confine the fore part, while the heel directs the croup round. The aiding with the leg will induce the horse to advance, if a proper restriction be not put in the fingers; and the moving one end of the lever will shift the other, if not properly confined.

The passive obedience and submission of the horse to these nice restrictions of the hand and heel, is not to be expected from those which have not been properly broke; and these, if not sometimes practised to them, will shew a reluctance to obey; in which case (as I have observed, two hands can do more than one), you take the assistance of the other hand; for, though the delicacy of the performance is interrupted, the obedience must be compelled. The hand to which you would turn is the hand you must take the bridle in, and you take as much assistance from that hand as you find necessary. Should resistance require a powerful operation from this hand, observe, your power to compel the horse to turn increases in proportion as the hand is detached from the body; so that, when you pull in the direction from the horse's mouth to the horse's croup, your power is immensely greater than when you pull in a line to the centre of your body. The assistance of the right heel with the right hand, and the left heel with the left hand, must proportionably be given. Thus, being possessed of power, your discretion must direct you to the use of it.

The fourth aid or operation of the hand, requires the horse to rein back. Little or no alteration from the first position is necessary to effect this: the reins being properly adjusted, the stiffening of the muscles and pressure of the fingers are generally sufficient for proper dressed horses. To give greater efficacy, turn the knuckles a little down, and draw in the belly: the body should, if any, rather

incline forward, which gives the hand a greater effect, without provoking the horse to rear; a circumstance that might occur with horses which do not readily obey the hand, particularly if you leaned back to give power to the hand; and then you might be in some danger, because the body is not in a situation to act as the circumstance requires.

This must be particularly attended to, because, if you attempt to compel the horse back by the power or weight of the body, and he should rear, which is to be more expected than not, the body cannot be brought forward, and you hang on by the bridle; and, should you happen to have the preponderance, you pull the horse backwards on yourself.

The operation of the hand, in reining back, is a kind of invitation. Should the horse not readily obey, play with the mouth by moving the fingers; this will induce the horse to raise his head; gently close your legs to make him unite, and then the pressure of the fingers will constrain him backward. The instant the horse is constrained to back, the body, if in a proper position, will incline forward, and the fingers must be eased. A horse that is properly broke, obeys the lightest pressure of the fingers, and backs without throwing himself off his balance: but the horse that is constrained to back, is overbalanced; and, if the body did not come forward, or the hand relinquish its severity, he must back till he fell: therefore, the instant the horse yields to the hand, the body and hand yield to the horse, that he may recover his balance, and the little alarm occasioned thereby; and then gently invite or press him to back again.

It is to be observed, in reining back, the hand and the heel change their functions; that is, the hand compelling the action, and the heel directing it.

Having gone through the different positions to give efficacy when wanted, without moving the arm, there are still remaining many properties and excellencies, several of which must be obtained by observation and practice, words not being capable of conveying an adequate idea of them.

Aids, Corrections, Animations, &c. &c. Being necessitated to give a description of the aids as they accompany the hand, I have but little to add in this place. Aids are the indication of the horseman's will to the horse, and are so called, because they not only require but assist the horse to execute, at the same time they check

or obstruct him from acting contrary. Now, the positions of the body and legs, when they deviate from the fundamental seat, as laid down, for the purpose of giving effect and assistance to hands, are aids; but when, for the purpose of preserving the balance, or maintaining the seat, they are necessary variations of the seat, and will be found as many as the positions the horse can work in: in most instances, they contribute to assist both hand and seat.

The aids of the legs have their progressive strength and effect, and are thus given: the leg being brought nearer the side, is the first degree, or lightest aid; placing the leg further back, with the toe turned out, is the next; the lightest possible touch with the calf of the leg, is the third; and so on, increasing the degree of pressure, according to the strength of aid required, with the toe kept up firm, that the muscles of the leg may be hard and operative. The strongest aid is the scratch, which is thus given:—when the leg is laid on hard without effect, drop the toe; and if the spur is placed in a horseman-like manner on the heel, the rowel of the spur will thereby prick or scratch the horse's side. To this succeeds a correction, by giving the spur sharply.

Aids with the whip are sometimes used to give greater effect to the heel. These are gentle taps with the whip on the hind quarters, and sometimes on the shoulders: when given on the near side, the hand is applied behind the back, with the whip held by the fingers as you would a pen, with the lash downwards; or crossing the bridle-hand before, the whip held with the lash upwards. When aids are properly displayed, they discover the taste and the judgment of the horseman, and have a pleasing appearance.

Corrections are given by the hand; they are likewise given by the whip and spurs. The use we make of the whip and spurs, in common, to quicken and animate a horse, we do not call corrections, though sometimes given with a degree of severity; but when correction is given, it should be for vice or obstinate disobedience, and at such time, and in such manner, that the horse may be sensible for what; but with the intent to deter him from the like again.

Correction as smart and determined as possible, and repeat it sharper, if possible, should he kick at that. By this the horse is made sensible of his fault, and is

punished for it; and without such punishment the horse might be ignorant of doing amiss.

For if we wish to draw a croupade or balotade from a horse, we use a similar method of aiding on the croup to provoke and irritate him to raise it; for which we caress him, to let him know it was what we desired.

The animations of the tongue operate by surprise; it is a sound which all the letters in the English alphabet cannot express, and is produced by placing the tongue against the roof of the mouth, and drawing the air between it.

The noise is better known to the generality of people than I can describe it; it is the most animating sound to the horse the tongue can express; and, when judiciously applied, has its proper effect; but if too much continued, or too frequent, its design is done away, for it no longer alarms or surprises. Hence, you may alternately use your animations to keep up an effect; and, with sluggish horses, you may be necessitated to use the whip and spurs.

Soothings are the reverse of animations, and are used to pacify horses that are alarmed, frightened, or have too much fire or animation in their constitutions. Of all the means we use in dressing of horses, soothings and caresses are the most salutary, and from which no harm can accrue. These dispel their fears and apprehensions; reconcile them to new operations; give them confidence in their master; open their understanding to comprehend his lessons; and make them delight in instruction. The voice soothes by the mildest and softest expressions, such as—So, so, so, so!—poor fellow!—and the like. The hand, by gentle patting, stroking, &c. The body and legs, by a stillness, and relinquishment of all unnecessary firmness; sitting easy, and not moving a muscle.

On Changes, Volts, &c. A change is no more than the altering the hand to which you were going, or the foot with which you were leading: but this being done by different tracks or modes, and in several actions and airs, gives consonant names to them, and displays a taste in diversifying and execution.

The long change is crossing the riding house in a diagonal line, the whole length of the house; which, when you are working to the right, you quit the wall at the figure 1, and cross to the figure 3; or quit the wall at the figure 3, and cross to

the figure 1; by which you change the hand to which you were going. In like manner, when working to the left, and you would change to the right, you depart from the wall at the figure 2, and cross over to the figure 4; or at figure 4, and cross over to figure 2; which effects the change.

When working on circles of a large diameter, and you would effect a change, you form another circle of the same dimensions, making a figure of 8; in the intersection of which circles, you change your own and horse's position, by which you work to the contrary hand. These are called *changes large*; consequently, when your circles are so circumscribed that the two do not exceed the width of the riding house, they are *narrow changes*.

An air performed on a circle is called a *volt*; consequently the half circle is a *demi-volt*; the change by the demi-volt is effected when working to the right, as from *a* to *b*. At *b* you quit the line, and work on a demi-volt, which brings you to the point *c*, at which place you change and work to the left. In changing again from the left to the right, you quit the line at the point *d*, work on a demi-volt to the point *e*, change, and work to the right. The changes on the volt are confined to particular airs, as the *passage, terre à terre, and mezzair*. When the volt is complete, make a half stop, change the leg, and work the volt round to the contrary hand, on the same ground as before.

The *change reverse* is worked on traversing lines, and confined to the same airs as the volt; it is reversing your hands, position, &c. consequently the horse's position and foot at every angle.

For a further illustration of this subject, we refer the reader to "Adams's Horsemanship."

MANE is the name by which the long hair is called hanging from the neck of a horse, and extending from the back of his ears to his withers.

MANGE. See DISEASES OF DOGS, under the general head DOG.

MANGE IN HORSES. A cutaneous disease, incident to many domestic quadrupeds, and attended with an eruption and loss of hair. Mr. Ryding's account of this disease is as follows:

The causes of the mange, he says, are sudden changes of temperature, hot stables, bad diet, joined to want of cleanliness. The perspirable matter being

never properly removed by friction, and frequently being mixed with dust, &c. completely plugs up the external vessels, whereby they become obstructed, and a diseased action takes place. It may also be caused by infectious matter coming in contact with the skin; as when a sound horse rubs himself against the stall in which a mangy horse has been kept.

The principal symptoms of mange are, the horse growing very thin, without any apparent cause, attended with a staring of his coat. This is soon followed by eruptions, which discharge a thick yellowish matter, forming a kind of scurf, which peels off, and is succeeded by fresh eruptions, and the hair falls off. This, though partial at first, soon spreads all over the body, is attended with an itching, which causes the horse to rub against every thing he comes near.

With due attention to cleanliness, the following medicines will very soon remove this disease:

Take of Prepared hog's lard, one pound;
Sulphur, half a pound;
White hellebore, in fine powder, three ounces;
Mix, and add
Olive oil sufficient to make soft ointment.

A moderate quantity of this ointment may be rubbed well, with the hand, all over the affected parts, or where there is the least appearance of any eruption; and this should be repeated after an interval of three days. Two or three applications of this ointment, Mr. Riding says, are generally sufficient to complete the cure.

The following medicine, however, may be given with advantage in this disease. It will be found excellent for removing cutaneous obstructions, improving the appetite, and promoting condition.

Take of Antimony in fine powder, eight ounces;
Grains of paradise in fine powder, three ounces.
Mix, and add
Venice turpentine, sufficient to form the mass of a proper consistence, and divide it into twelve balls. One of them may be given every other day.

Mr. Denny says the cure ought to commence with taking away four or five pints of blood, if the animal's strength will allow it; (by the way, a very material proviso; as promiscuous bleeding is too commonly practised in cutaneous

diseases): and we are advised to give the following ball in the evening:

Take of Nitre, in powder,
Resin, in powder,
Castile soap, of each half an ounce;
Camphor, in powder, one drachm;
Honey, enough to make a ball.

He recommends particular attention to be paid to diet, exercise, and good grooming. The food, he says, ought to be of the best quality, and given in liberal quantities. The bowels should be kept open with mashees, in which an ounce of nitre is dissolved. A small rowel may likewise be placed in the chest. The affected part should be well washed with a strong solution of soft soap, and afterwards rubbed, morning and evening, with the following ointment, for a week:

Take of Flowers of sulphur, four ounces;
Hog's lard, three ounces;
Quicksilver ointment, two oz.
Mix them.

This ointment may be continued every other day, until the disease gives way, or is entirely removed. Two or three doses of mild physic are afterwards recommended, and then the following ball, every night, for a month:

Take of Ethiop's mineral,
Crude antimony, in powder,
Cream of tartar, of each half an ounce;
Honey, enough to make a ball.

When the disease is removed, which a perseverance in the above method of cure, Mr. Denny asserts, will effect, the horse should be turned out to grass, if at a proper season of the year; but a salt marsh should be preferred.

Mr. John Lawrence is disposed to consider, as the principal causes of this disease, neglect and insufficient diet. He says, "if you keep a horse very poorly, he will be mangy; but if you line his inside well, however you may neglect him externally, he will not generally be mangy." He excepts, however, the case of the horse's being employed by a lime-carter. "A few years ago (says Mr. L.) on the recommendation of certain stable economists, and in the teeth of common sense and my own experience, I undertook the feeding of labouring cart-horses upon carrots and oat-straw, and other vegetable trash, for which I was properly rewarded, in a short time, by the trouble of curing them all of the mange. This disease, or morbid result of poverty and filth, suffered to arrive

at an extreme degree of inveteracy, degenerates into a marasmus or consumption, absolutely incurable.

"The mange, if a mere cuticular affection, induced by an external cause, or caught by contact of a diseased horse (which last may happen from rubbing against such an one, or wearing infected clothes, or standing in an infected stall), is speedily cured by external applications, with the aid of a dose or two of physic; but when the disease originates in the mass of humours being vitiated, the cure will require a greater length of time, and a larger share of medical assistance."

In a slight case, the treatment advised is strong tobacco infusion with one third part of stale urine, to wash the affected places. But as an efficacious unguent,

Take of Quicksilver ointment, half a pound;

Brimstone, finely powdered, four ounces;

Black soap, two ounces;

Crude sal ammoniac, an ounce and a half;

Oil of bays or turpentine, enough to make an ointment.

Or,

Take of Tar,

Gunpowder finely powdered,

Black soap,

Oil of turpentine, of each about equal quantities.

Mix into an ointment.

In cases of long standing, where the ulcerations are extremely foul, and resist all moderate applications, the following ointment, Mr. Lawrence says, may be ventured on:

Take of Burnt alum,

Borax, in fine powder, of each two ounces;

White vitriol,

Verdigrease, powdered, of each four ounces.

Put them into a pot over the fire with two pounds of honey, or of lard and honey equal parts. Stir them till they are well incorporated, and when cold, add of

Aqua fortis, two ounces.

The first of these ointments, however, Mr. Lawrence conceives to be equal to almost every case, being used at night;

especially if the sores be washed twice a day with the following lotion:

Take of Muriated quicksilver (sublimated), in powder, half an ounce;

Dissolve it in a pint and a half of boiling water.

Or perhaps the following may deserve the preference:

Take of Muriated quicksilver,

Muriated ammonia (crude sal ammoniac), of each from two to three drachms;

Boiling water, three half pints.

Mix.

This kind of treatment, modified at the discretion of the practitioner, will succeed in cases of mange affecting other animals.

MANGER. The name by which the trough is called that is fixed in all stables. It is an excellent and healthy custom to let all mangers, in constant use, have a substantial scrubbing with soap, brush, and boiling water, once a month.

MARCH. At this period field sports are drawing to a close. The pursuit of the fox is continued during the whole month, and excellent runs are frequently obtained; but the huntsman should, if possible, ascertain the sex of the chase; since if it be a bitch fox, it may be in a state of gestation, and infinite mischief to future sport may therefore result: at the same time, it will not be able (particularly if far advanced) to stand long before the hounds, and will consequently afford but little diversion.

The hare is pursued at the commencement of this month; and after killing what is called a *March hare*, both hunting and coursing cease.

This is the period for breaking young pointers and setters; as the birds having paired, will not easily take wing, but will, on the contrary, run much, and thus afford the dogs an excellent opportunity of acquiring a knowledge of their business. The dogs should, however, wear muzzle pegs, to prevent them chopping young hares, many of which will have been dropped before the end of the month.

Otter hunting, if the weather be fine, may be commenced; and the same observations may be applied to angling.

MARE. The well-known feminine of the horse, but not held of equal value with the masculine in respect to the gender, which is not only troublesome, but found to be productive of temporary debility at certain seasons of the year. Mares are evidently weaker, and less

adequate to severe work, at certain periods ; which, perhaps, is the principal reason why geldings are so generally preferred, as far as they can be obtained. Notwithstanding this partiality, mares are not without their advocates, and have their conveniences : in cases of lameness, or other occurrences in the long list of casual ills, they, of course, become appropriate to the purpose of propagation, without much loss being sustained. Those, however, who expect to derive either pleasure, emolument, or a gratification of ambition, from breeding, must be a little prudent and circumspect in the shape, make, distinct points, and general symmetry, of the mare, before they too hastily embark in so critical, and so truly expensive, an undertaking. Although it is a maxim universally admitted, that an equal degree of precaution should be used in respect to the horse, it is doubly and trebly necessary with the mare ; because strict observation has demonstrated, that nearly or full two out of every three foals display, in their appearance, more of the dam than the sire : and that there are more fillies than colts fallen every year, will not admit of a doubt.

A variety of opinions are held, and occasionally propagated, upon the best and most proper age for putting a mare to the horse : that a filly, covered in her third year, will produce a fine healthy foal in her fourth, is sufficiently known ; and that brood mares bring forth excellent stock from their twentieth to their twenty-fifth year, is equally true ; but if the two extremes are avoided (when it can be conveniently done) the produce may most likely come some few shades nearer perfection. In the first instance, it is fair to infer, that the component parts may not have reached the extreme points of strength and maturity ; and that in the latter, from the natural effect of age, the frame is verging upon decay ; and that the lacteals, from whence the nutriment for the foal is to be obtained, must be contracted in proportion.

The best and most approved season for letting the mare take the horse, where the produce is bred for general purposes, is from the first week in May to the last in June ; as then the offspring is dropt in April or May in the following year, which are the most proper months a foal can fall in, to have the advantage of all the summer for growth and expansion, preparatory to the drawback of weaning, and the ensuing severity of the winter. Mares during the time of gestation, are liable, but very little subject, to abortion ; reasonable work and moderate exertions, affect them but slightly in that way ; nor does the disappointment but seldom happen, unless by some severe, cruel, or inhuman treatment. Mares are the most uncertain of all animals in bringing forth from the time of conception. Numerous attempts have been made to discover the precise time of a mare's carrying her foal, which, however, does not yet appear to have been ascertained to a certainty. Long-standing opinions and authority, transmitted from one posterity to another, has established at eleven months, and as many days as the mare happens to be years old : strict attention, in a variety of instances, to both the lunar and calendar months, has proved the uncertainty of this calculation, and left them,

in these events, dependent upon neither one nor the other. Certain it is, they go many days longer with a colt foal than they do with a filly; and cases frequently occur, where a mare carries her foal within a few days of the twelve months.

MARK! A term used by sportsmen, particularly in cover shooting, where they are necessarily separated from each other; when one of the party having pushed or sprung a pheasant, or flushed a cock (at which he either did not get a shot, or missed), he then vociferates *mark!* in hope that his companion or attendant may get a shot, or *mark* the spot where the bird alights. The term is used in all kinds of shooting—in the case of hare, another word is generally added, as *mark low!*

MARK. In stable language, a horse marks, when he shews his age by a black spot, like the bud or eye of a bean, which appears, at about five and a half, in the cavity of the corner teeth, and is gone when he is eight years old: then he ceases to mark, and they say, *he has rased.*

Gibson says, “with regard to the marks of horses, arising from their colour, some have reckoned them to be lucky or unlucky, as they happened to be this or that way marked. Others have even been so curious as to lay much stress upon them, and to denote all the good or ill qualities of a horse from his marks: but, however this may be, certain it is, that a horse always looks the more beautiful for being well marked; and a horse without marks always has a deadness in his aspect.

A star is the most common of all marks; and where that is wanting, it is often supplied with an artificial one. When the white descends pretty broad toward the nose, it is called a blaze; when it descends into a smaller line, and is called a snip; and when most of a horse's face is white, he is then said to be bald. All these marks are beautiful when they are not in extremes, for a very large star is not reckoned so beautiful as one that is of a moderate size; neither is that baldness that spreads over a horse's whole face and cheeks any way becoming, as it gives him the look of an ox: and such horses are often plain-headed. When the white of a horse's face is divided in the middle, or any other part, or when a blaze or snip runs awry to one side, it looks somewhat disagreeable, though perhaps it may be no diminution to a horse's goodness. Some black horses have their stars or

blazes fringed round with a mixture of black hairs, which looks very well, only such horses are apt soon to grow grey faced, and look old; as are some of the browns. But when the bays and sorrels have their stars or blazes fringed, it is generally with their own colour, or lighter, and seldom has that effect.

As to the white marks upon the feet and legs of horses, they usually correspond with the marks upon their faces. Bald horses have generally a good deal of white about their legs, and often all four are white, which in them is not unbecoming. Horses with large blazes have often all their four feet white also; but a horse that has no marks on his face, or but a small one, never looks well with white legs, especially when the white rises above the fetlock: on the other hand, a bald horse, or any horse that has a blaze, without any of the feet white, is but ill marked; and therefore a horse always looks best when there is this correspondence and agreement in the marks: a horse that has his near-feet both before and behind white, and his off-feet without any white, is but indifferently marked. The same where the marks are only on the off-feet, without any white on the near-feet.

Some dislike horses for being traversed, or cross-marked, viz. the near-foot before, and the off-foot behind, white; or on the contrary, when the off-foot before, and the near foot behind, are only white. Those are usually judged to be the best marked that have only the near-foot behind white, or both feet behind white; or where the near-foot before, and both the hind feet, are white; especially when, at the same time, a horse has a large radiated star, or small blaze, on his face. When the white about the feet is indented with black, or any other colour, towards the coronet, these feet are thought to be generally good; and when the coronet is spotted like ermine, the mark is so much the better: but where a horse's pasterns, hoofs, and all his four legs, are white, especially when the white rises above the knees or hocks, it looks ugly; and a horse thus marked has too much of the pye-bald, consequently seldom fit for a gentleman's use.

The feather is another sort of distinc-

tion, which we often observe, especially upon stallions; and such geldings as have short hair, and are finely coated. Some are of a round figure, and some long and narrow, in the true penniform shape, or like an ear of barley. The round are often on the forehead, sometimes on the breast and shoulders, and look like embroidery. Those on the neck lie immediately under the mane, and run down towards the withers. When the feather happens on both sides the neck, the mark is reckoned exceedingly good and beautiful. Sometimes feathers run down the fore-arms, and sometimes on the thigh, and towards the dock; and they may be observed on several other parts of a horse; but, wherever they happen to be, they are almost always reckoned signs of goodness; and some of them are exceedingly beautiful.

MARKS. The foot-prints or treadings of wild beasts.

MARSH, OR SALT MARSH. A kind of pasture found to be particularly favourable to the recovery of sick and lame horses, under certain circumstances. The experienced Gibson says the salt marshes along the river Thames are as good pasture for horses as any about London; and there many horses run all the year round. Though the air arising from the marshes is very injurious to human constitutions, and subjects them to annual returns of the ague, and some other maladies; yet it has no such effect upon brute creatures that feed on them, which may perhaps be owing to the quality of the salts, with which that grass is more or less impregnated. The marsh soil is for the most part a composition of a very fine light mould, mixed with sand, covered all over with a fine trefoil, which sows itself and grows extremely thick in some places, as we see it on some parts of our finest commons. If the rains fall never so heavy, the ground being open drinks it up immediately, so that the cattle always lie dry upon it, even in winter, when most other places are potchy, which is one of the greatest benefits of all others to horses at grass. They purge more there, both by dung and urine, than on any other pasture, and afterwards take on a firmer flesh; so that those who send their horses there only to cleanse them, and after purging remove them to other pastures, unless it be for some particular convenience, Gibson says, are greatly mistaken; for he has known horses that have run

there summer and winter, with as few accidents as happen to horses any where else. Four-and-twenty hours' constant rain in the grass season will often bring up grass in the marshes, unless the weather be extremely cold. And horses often grow fat on the best marshes, when they are eaten so bare, or burnt up in dry weather, that scarcely any grass is to be seen on them. In winter some never house them, but let them run abroad and take their chance in the open fields, where there are neither trees nor hedges to cover them, and yet they seldom suffer any thing from the extremity of the weather; nor, unless the ground be covered deep with snow, do they allow them any dry forage. Yet these for the most part appear in good case, even in the months of December and January, when they have nothing to feed on but the roots.

All the water they have to drink is for the most part brackish, which at first is not very agreeable to horses that have not been used to it, but afterwards they come to relish it as well as any other. The greatest danger on the marsh ground is from the deep ditches made to take off the spring tides, some of which have their bottoms full of a kind of loam, engendered by the weed which comes into them in great plenty at high water. And if a horse that is a stranger to these grounds happen, in leaping, or any other way, to step into one of them, he may run the hazard of being lost unless he be discovered in time. Sometimes horses have been washed away with the spring tides by going too near the dykes; but these accidents seldom happen, not only because the marsh-men are always upon the watch at such times, but most horses have sagacity enough to avoid the danger.

It is certain that there have happened some instances of horses that have soon died there. These, however, are but few; yet no wonder, considering many are carried there, as consumptive people are sent to the hot-wells, when all expectations from the common means are given up. Nevertheless great numbers of horses recover in the marshes beyond all expectation, in chronic distempers, especially where the viscera happen to be sound, or but little diseased. "Nay, (says Gibson) I may venture to say, when a distempered horse dies suddenly at the marshes, it is a good riddance to the owner." Those who have not the conveniency of the marshes, may turn their horses out upon some other good pasture in a moderately

warm soil, where the grass is fine, and has never been forced with dung or other unkindly manure, and where there is good water and proper shelter.

MARSK. A horse whose celebrity arose more from chance than any peculiar merits of his own. He was bred by the then Duke of Cumberland; was foaled in 1750; got by Squirt, (who was got by Bartlet's Childers;) dam by Blacklegs, grand-dam by Fox-cub. Although his blood and racing ability were fairly admitted, yet, so far from having acquired any reputation as a stallion, he was permitted to cover common mares at the Lodge, in Windsor Great Park, for only half-a-guinea, which was the groom's fee. Precisely at this period (in the year 1763) Spiletta, the dam of Eclipse, having proved barren for two or three years in

succession, a new experiment was made, and she was covered by both Shakespeare and Marsk in the same season; when stinted, and some time after perceptibly in foal, it was uncertain which was to be declared the sire, till the produce falling to correspond with the last leap of Marsk, he became (from Eclipse's astonishing powers) loaded with honours, publicly acknowledged the sire with an enhanced reputation, and a constantly increasing seraglio; from which time he continued a stallion of the first eminence, and produced a progeny of winners by much too long for introduction under this head. Spiletta afterwards produced Proserpine by Marsk, foaled in 1766; and that well-known horse Garrick, foaled in 1772; both excellent runners.

MARTIN OR MARTERN. This animal is about eighteen inches long, of a dark chesnut colour, and has a yellow throat and breast. It frequents the pine forests of all the northern regions, but particularly of America; and is found in many parts of England.

Its general retreat is in the hollow of some tree; so high up and in other respects so situated, as to afford it perfect security. The nest of the squirrel is generally preferred: of this the martin dispossesses the ingenious architect by killing him. The martin now enlarges the dimensions of its new habitation; lines it with softer materials, and in that secure retreat brings forth its young.

Its courage is so great that it will attack animals much larger and stronger than itself. But notwithstanding this ferocity of disposition, the martin is easily rendered docile. Gesner says he kept one which was extremely playful and entertaining. It used to go to the houses of the neighbours, and always returned home when it wanted food. It was particularly fond of a dog with which it had been bred up; and would play with him as cats do, lying on its back, and pretending to bite him. Buffon had one, which, though it had lost its ferocity, did not however discover any marks of attachment, and continued so wild as to require being chained. It frequently escaped from its confinement: at first it returned after an absence of some hours, but without appearing pleased: the time of absence of each succeeding elopement gradually increased, and at last it took a final departure. During its confinement, it sometimes slept for two days without intermission. When preparing for sleep, it formed its body into a circle, and hid its head, which it covered with its tail.

These animals have a musky sort of smell, which to many persons is highly agreeable. Their cry is sharp and piercing; but is never uttered except when in pain or distress. Their principal food consists of rats, mice, and other small quadrupeds; poultry, game, &c. and they are remarkably fond of honey. They are very destructive to game, particularly to pheasants.

The female produces three or four young, which soon arrive at a

state of maturity. She is able to afford them but a small quantity of milk ; but she compensates for this defect by bringing home birds and small animals alive, and thus she early accustoms her offspring to a life of carnage and plunder. As soon as the young are able to leave the nest, she leads them through the woods, where they begin to seize on their prey and to provide for themselves.

Fox-hounds are sometimes entered at the martin ; and though Beckford seems to approve of it, we are by no means disposed to recommend it, being decidedly of opinion that it is the best plan by far to enter young hounds at their own game ; or, in other words, to stoop them to that scent, which they are intended afterwards to pursue.

MARTINGAL. The article so named is of two kinds ; one of which is termed a headstall martingal ; the other, simply, a martingal : each consists of a long strip of leather, about an inch and a half wide, passing between the fore legs, with a loop or wide noose at its extremity, through which the hinder girth is to pass, and by which it is secured at that end : at the front of the breast it divides into two equal branches ; and having rings at the extremity of each, they are slipped upon the bridoon (or snaffle) rein, and are used to keep down the head of a hard-mouthed or star-gazing horse. The headstall martingal is of similar construction, except its having a headstall the same as a bridle, to which the divided branches before described are united at the cheek on each side ; but this is a hazardous practice, and

should only be used with colts in breaking ; for if a horse once stumbles in action, he is so confined, that his sudden exertion to raise his head, and to recover himself, being counteracted, he almost inevitably comes to the ground.

MASH. A kind of diet pudding sometimes given to a horse. It is made of half a peck of ground malt, put into a pail, into which as much scalding water is poured as will wet it very well. When that is done, stir it about till by tasting you find it as sweet as honey ; and when it has stood till it is luke-warm, it is to be given to the horse. This is mostly used after a purge, to make it work the better ; or after hard labour ; or in the time of sickness. Mashies are made with bran in the same manner.

MASTIFF. Mastiffs are said to be peculiar to this country, where they are principally used as watch-dogs, for which purpose they are superior to the bull-dog, as they are more watchful and more sagacious. The dog formerly used in Germany for the pursuit of the boar was something of the mastiff kind, and they are still to be found in that country, particularly in Hungary.

The English mastiff is extremely bold and courageous. Stow relates an instance of a contest between three mastiffs and a lion, in the presence of James I. One of the dogs being put into the den, was soon disabled by the lion, which took him by the head and neck and dragged him about. Another dog was then let loose ; and was served in the same manner. But, the third being put in, immediately seized the lion by the lip, and held him for a considerable time, till being considerably torn by his claws, the dog was obliged to quit his hold. The lion, greatly exhausted by the conflict, refused to renew the engagement ; but, taking a sudden leap over the dogs, fled into the interior part of his den. Two of the dogs soon died of their wounds : the last survived, and was taken care of by the king's son ; who said, " He that had fought with the king of beasts should never after fight with any inferior creature."

The English mastiff is a very powerful animal, and in general very courageous, but his courage cannot be always depended on, like that of the bull-dog.

A most extraordinary instance of memory in a mastiff is related by M. D' Osbonville. This dog, which he had brought up in India from two months old, accompanied him and a friend from Pondicherry to Bangalore, a distance of more than three hundred leagues. "Our journey (says he) occupied nearly three weeks; and we had to traverse plains and mountains, and to ford rivers, and to go along several bye paths. The animal, which had certainly never been in that country before, lost us at Bangalore, and immediately returned to Pondicherry. He went directly to the house of M. Beylier, then commandant of artillery, my friend, and with whom I had generally lived. Now the difficulty is, not so much to know how the dog subsisted on the road, for he was very strong and able to procure himself food; but how he should so well have found his way, after an interval of more than a month! This was an effort of memory greatly superior to that which the human race is capable of exerting."

We are told that a large mastiff, belonging to the late M. Ridley, Esq. of Heaton, near Newcastle, being frequently molested by a mongrel, and teased by its continual barking, at last took it up in his mouth by the back, and with great composure dropped it over the quay into the river, without doing any further injury to an enemy so contemptible.

MATCH IN RACING is a bet made between the owners where only two horses are concerned, one of which must become winner.

MATCH'EM. A bay horse, foaled in 1748, bred by John Holme, Esq. of Carlisle, and sold to William Fenwick, Esq. of Bywell, Northumberland.

Match'em (own brother to Changeling) was got by Cade; his dam by Partner; grand-dam (Mr. Vane's Little Partner's grand-dam) by Makeless; great-grand-dam by Brimmer; great-great-grand-dam, (Trumpet's dam, and great-grand-dam of Cartouch) by Mr. Place's White Turk, a daughter of Dodsworth, out of Mr. Layton's Violet Barb Mare.

In 1753, Match'em won the subscription purse of 160l. 5s. for five-year olds, 10st. four miles, at York, beating Mr. Shafto's Barforth Billy, by Forester; and Mr. Watson's Bold, by Cade:—2 to 1 on Match'em. He also won 50l. for five-year olds, at Morpeth, beating Mr. Shafto's Blameless, by Forester. In 1754, Match'em received a 20l. premium, and won the Ladies' plate of 126gs. for five-year olds, 9st. and six-year olds, 10st. four-mile heats, at York, beating at two

smart heats, Mr. Thornton's Sedbury, 5 years old:—The odds were greatly in favour of Match'em. He also won the Ladies' Plate of 80l. at Lincoln, beating, at two heats, the Duke of Ancaster's Martin, and Mr. Smith's Skim: and walked over for 50l. at Morpeth.

At Newmarket in April, 1755, Match'em won the 50l. for six-year olds, 8st. 7lb. and aged, 9st. B. C. beating Mr. Bowles's Trajan, 6 years old; and distanced two others: he won this race exceedingly easy; but, it was said, that Trajan ran faster than Match'em up the Chalk-Jade, but could not maintain it: they ran the heat in 7 minutes and 20 seconds, carrying 8st. 7lb. each:—The odds were 5 and 6 to four on Match'em, and large sums were lost on the contest. The friends of Trajan were not satisfied that Match'em was the best horse, from the very indifferent condition of Trajan, who was only taken from grass the December before, and had had but one sweat during the whole winter; and when he came to Newmarket was injudiciously hurried with the strongest exercise to prepare him for running. On this, Mr. Fenwick offered to run Match'em against any horse in Eng-

land for the whip, which was accepted by Mr. Bowles to run Trajan against him, at Newmarket following spring meeting.

In August, Match'em received a 20l. premium, no horse entering against him at York.

At Newmarket in April, 1756, Match'em and Trajan met, according to agreement, at 10st. each, for 200gs. each, and the whip, B. C. when Match'em proved the winning horse. The odds at starting were 2 to 1 on Match'em; over the Flat, 5 to 1 on Trajan; but at the Turn of the Lands, 100 to 1 on Match'em, who then made his run; and it was observed, that Mr. John Singleton, who rode him, judged perfectly right in keeping behind, and fretting the fiery Trajan, till he had got him out; and although Trajan had the lead upon the Flat, to maintain it he was obliged to be whipped.

In the second spring meeting, Match'em started for the jockey-club plate, and was beat by Spectator and Brilliant; Match'em being three times only third; Sweepstakes, Whistlejacket, and Crab, also started. The odds at starting, for the first heat, (which was run in 7 minutes, 52 seconds and a half) were 2 to 1 against Match'em, 3 to 1 against Whistlejacket, and 4 to 1 against Brilliant. The odds for the second heat, (which was run in 7 minutes and 40 seconds) 2 and 3 to 1 against Brilliant, 4 to 1 against Spectator, and Match'em scarcely named. And the odds for the third heat, (which was run in 8 minutes and 5 seconds) were 2 to 1 on Spectator, and 6 to 1 against Whistlejacket, who made good running for the last heat. After which, Match'em won 60gs. at Newcastle, beating easy Mr. Swinburn's Drawcansir, and Mr. Parker's Full-Moon.

At Newmarket second spring meeting, 1758, Match'em started for the jockey-club plate, and was second to Mr. Greville's Mirza; Sir James Lowther's Jason, third; Mr. Panton's Feather, fourth; and Mr. Vernon's Forester, fifth. At starting, even money against Feather, 6 to 4 against Jason, 6 to 1 against Mirza, and 10 to 1 against Match'em. Though Mirza gained advantage at starting, which he kept above three miles, yet Match'em ran an excellent honest horse, and was beat with great difficulty: and as large sums were depending between Match'em, Jason, and Feather, it was observed, "That the friends of Poor Old Match'em, not only combed the golden-fleece, but dressed the feathers very handsomely."

In September following, Match'em won 50l. wt. 9st. at Scarborough, beating easy Mr. Jolliffe's Foxhunter, and Mr. Harvey's Sweepstakes. At starting, 10 to 1, and after the heat, 20 to 1, on Match'em. The above were the only times of his running.

Match'em then became the leading stallion in the north of England, where he covered with uncommon success, till death put a period to his existence, which happened in the 33rd year of his age, at Bywell in Northumberland, on Wednesday, the 21st of February, 1781.—A few days previous to his death, he covered a mare which proved in foal.

Match'em first covered at 5gs.; in 1765, he was advanced to 10gs.; in 1770, to 20gs.; in 1775, he was stinted to 25 mares, (with those of his owner) at 50gs. each, exclusive of the groom's fee.

It has been said, and there can be little or no doubt of the truth, that Mr. Fenwick cleared by Match'em, as a stallion, upwards of 17,000l. which was about 6,000 more than Mr. Martindale of St. James's Street, London, gained by the celebrated Regulus.

MAY. In some places (but I hope very few) it is the custom to kill a *May fox*; generally speaking, however, fox-hunting closes at the beginning of April; therefore, with the exception of angling and otter-hunting, field sports have ceased.

Partridges and pheasants deposit their eggs during this month, and commence the process of incubation.—The hopes of the shooter depend much upon the state of the weather during the months of May and June:—if it be warm and dry, an abundance of both partridges and pheasants may be very confidently anticipated. On the contrary, should much rain fall, the young birds will suffer accordingly.

Young grouse will appear this month, some strong, and perhaps on the wing.

An abundance of young hares are brought forth during this month. The same remark will apply to young foxes.

MERCURY was the name of a horse, that, as a racer, and afterwards a stallion, stood very high in sporting estimation. He was bred by the late Colonel O'Kelly; foaled in 1778; was got by Eclipse out of a Tartar mare, who was likewise the dam of Whitenose, Maria, Antiochus, Venus, Jupiter, Adonis, Lilly of the Valley, Volunteer, Bonnyface, and Queen Mab. After having acquired considerable celebrity as a good runner, and proved himself equal to any horse of his time, he became a favourite stallion in

the possession of Lord Egremont, where he produced a numerous progeny, including a very great number of winners, many of much note; and, amongst the rest, the following celebrated horses, some of whom were stallions of high reputation: Calomel, Sublimate, Hypolyto, Mercurio, Old Gold, Precipitate, Quicksilver, Young Mercurio, Felix, Cinnabar, Mother Bunch, Hermes, Pill Box, Silver, Transit, Gohanna, Caustic, Stadtholder, Buckingham, &c. &c.

METTLE. A cant term used by dealers in horses to express a great deal of spirit, vigour, or *heart*, as they otherwise call it. There is great difference between a mettled horse, a horse of vigour, and a fiery horse; but as this is not sufficiently attended to by gentlemen in their purchases of this animal, some general rules for the distinguishing real vigour in a horse may be acceptable.

When a horse is standing still, the rider who has a mind to try whether he has vigour in him should keep him fast with the bridle-hand, and apply the spurs to the hair of his sides; this is called by horsemen, pinching. If the horse is impatient under this, gathering himself up, and endeavouring to go forward, and champs upon the bit, without thrusting out his nose, it is a sign of vigour and right mettle in him. Some caution is to be used, however, in judging by this, to distinguish between a horse that has vigour really in him, and one that has only a fine skin, and is rather ticklish than mettled. This is the case with a great many horses, and is found by their being very sensible of the touch of the spur, and shewing the appearance of a great deal of mettle and vigour when touched, but immediately losing the apprehension of it. These are, in fact, of a dull

disposition, and only have a tender skin.

The mettled horse is to be highly valued; but the fiery one is good for nothing. A horse that is truly vigorous should be calm and cool; he should in general move on patiently, and only shew his mettle when it is required of him.

The surest method is to choose such horses as are extremely apprehensive of strokes, and are afraid at the least appearance of their coming. These, at only the closing of the legs and thighs, seem to be seized with fear and alarm, but that without fretting or fierceness. A horse that walks deliberately and securely, and that without requiring the whip too often, will go on briskly and without fretting; will go from the walk to the gallop, and as easily from the gallop to the walk again, and continually champs upon the bit, and trots with freedom, upon the shoulders easily, and snorting a little through his nostrils: this is generally a creature of true mettle and vigour, though it does not rise to such a fierceness as is troublesome or dangerous. If to these good qualities a horse be well upon his haunches, and have a light and easy step, his head well placed and firm, and the feeling of his bit equal and just, the buyer seldom need to complain of the price.

MEUSE. A small hole made in the bottoms of hedges by hares, through which these animals frequently pass; and where the poacher generally places his wire snare or purse net.

MEWING is an old forest term for a stag shedding his horns.

MEWS. A receptacle for horses and carriages. The buildings consist of stables and coach-houses with conveniences above for the residence of coachmen and their families.

MIGRATION OF BIRDS. This subject is involved in a considerable degree of obscurity; and in all probability will for ever remain so; sufficient, however, is known on the subject to render it highly interesting. Such birds only as migrate to great distances are denominated *birds of passage*; but most birds, although they do not go to places far remote from their former habitations, in some degree, migrate. At particular times of the year, many kinds remove from the more inland districts towards the shores. The time of these flittings are observed with the most astonishing order and punctuality. Pope has the following beautiful lines on the subject:—

“Who taught the nations of the field and wood
To shun their poison, and to choose their food?”

M I G R A T I O N

Prescient, the tides or tempests to withstand,
Build on the wave, or arch beneath the sand?
Who bid the stork, Columbus-like explore
Heav'n's not his own, and worlds unknown before?
Who calls the council, states the certain day,
Who forms the phalanx, and who points the way?
See then the acting and comparing powers!
One in *their* nature, which are two in *our's*;
And Reason raise o'er Instinct as you can,
In *this* 'tis God directs, in *that* 'tis man."

The secrecy of the departure of birds, and the suddenness of their re-appearance, have given rise to various conjectures. Much of this difficulty arises from our not being able to account for their means of subsistence during the long flights of many of the birds, which are obliged to cross immense tracts of water before they arrive at the place of their destination. Accustomed to measure distance by the speed of those animals with which we are well acquainted, we are apt to overlook the superior velocity with which birds are carried forwards in the air, and the ease with which they continue their exertions for a much longer time than can be done by the strongest quadruped. Childers, one of the swiftest race horses, went at the rate of one mile in a minute, having in twenty seconds run one third of a mile; he also carried nine stone two pounds, four miles in six minutes and forty eight seconds.—Firetail and Pumpkin ran a mile in a minute and a half; but these efforts, great as they certainly are, were not of long duration, and were attended with a total want of power to continue them. But the case is very different with birds: their motions are not impeded by debility, which is the constant attendant upon the uncommon exertions of quadrupeds and of men: they glide through the air with a quickness superior to that of every quadruped; and they can continue on the wing with the same speed for a considerable length of time. Suppose a bird to fly half a mile in a minute for twenty-four hours; in that period, it will have gone over an extent of more than seven hundred miles, which is sufficient to account for almost the longest migration: and if aided with favourable currents of air, which, when in their highest flights, from the appearance of the atmosphere, the clouds, direction of the winds, and other causes, they can apply by that instinctive knowledge which regulates their movements, the journey may be still more speedily performed. There are some of these migratory birds, which, beyond all question, move through the air much quicker than at the rate of half a mile in a minute; for instance, the swallow tribe, the cuckoo, the snipe, the woodcock, &c. and these, it may easily be imagined, find no great difficulty in reaching their place of destination; but the case is very different with some others; such as the quail, the land rail, &c. which appear to have the same journey to perform with very inferior powers.

However, the body of birds in general is so shaped as to dispose it most readily for flight; its make is full of airiness and symmetry; its plumage is well adapted to protect it from the inclemency of the atmosphere through which it passes; and indeed it seems every way

M I G R A T I O N

calculated for moving with the utmost rapidity through that thin and subtle fluid, the air.

The bones of a bird, according to the observation of the late Mr. John Hunter, are hollow and contain air, which he imagined might be intended to assist the animal in the act of flying, by increasing its bulk and strength without adding to its weight. The internal structure of birds is no less wisely adapted. The lungs are placed close to the back bone and ribs; the air, entering into them by a canal from the windpipe, passes through and is conveyed into a number of membranous cells, which lie upon the sides of the pericardium, and communicate with those of the sternum. In some birds, these cells are continued down the wings, and extend even to the pinions, thigh-bones, and other parts of the body, which can be filled and distended with air at the pleasure of the animal. It seems to be evident, that this general diffusion of air through the bodies of birds is of infinite use in assisting respiration during the rapidity of their flight.

It has been asked whether this universal dispersion of air through their bodies does not account for the superior heat of this class of animals? The separation of oxygen from respirable air, and its mixture with the blood by means of the lungs, is supposed by Dr. Crawford to be the efficient cause of animal heat.

The steerage of a bird in its flight is effected partly by the wings, but in a principal degree by the tail; and hence we meet with a circumstance not a little remarkable. Birds with *long legs* have *short tails*; and, in their flight, they place their legs close to their bodies, at the same time stretching them out backwards as far as they can. In this position the legs extend beyond the rump, and become the rudder; supplying that steerage which the tail could not. The eagle, however, would seem to be an exception to this rule in some measure: it has *short legs* and a *short tail* also; and, we are inclined to think, cannot turn with that rapidity which we see so easily effected by some of the other feathered tribes: but it appears as if for ever on the wing, at an immense height, constantly sailing, as it were, in circles, without exertion: the writer has frequently watched them for hours together.

Birds seem wisely and curiously constructed to assist this aerial motion; in every part of their form they are active and buoyant, moulded for lightness and shaped for celerity. The lungs also of birds, as compared with the lungs of quadrupeds, contain in them a provision distinguishingly calculated for this same purpose of levitation; namely, a communication (not found in other animals) between the air vessels of the lungs, and the cavities of the body; so that by the intromission of air from one to another, at the will, as it should seem, of the animal, its body can be occasionally puffed out, and its tendency to descend in the air, or its specific gravity made less. The bodies of birds are blown up from their lungs (which no other animal bodies are) and thus rendered buoyant.

On the subject of the migration of birds, Bingley, in his "Animal Biography," observes—"The following is a table of the migration of several of the British birds, taken on the average of about twenty-

six years, from the observations of Mr. Markwick, inserted in the first and fourth volumes of the *Linnean Transactions*." Then follows the table, wherein the appearance of the quail in this country is stated to be the twentieth of August! that of the land-rail on the first of September!" Now, every person at all acquainted with rural affairs, knows full well, that both the quail and the land-rail appear in this country in spring, generally in the month of April; and that in fact for the purpose of breeding they must appear for the first time in spring, and not, as Bingley has stated it, at the latter end of the summer. Bingley's table is made up, for the most part, of similar absurdities. This is one striking fact, amongst a thousand others, of the caution necessary in forming an opinion of any thing advanced by writers who affect to treat a subject of which they are most profoundly ignorant; and for the purpose of making up a book, they merely copy the opinions or assertions of preceding scribblers, whose ignorance they thus continue to promulgate and preserve.

MINNOW. This little fish abounds in many of our small gravelly streams, where they keep in shoals; and when in right season, which only happens just after spawning, it is dappled, its sides inclining to a greenish watery sky colour, its belly white, and its back almost black, but these colours are not universal; the body is slender and smooth, the scales being extremely small; it seldom exceeds three inches in length; the lateral line is of a golden colour, the back flat and of a deep olive; the sides and belly vary greatly in different fish, as a few are of a rich crimson, others are bluish, and others white. The tail is forked, and marked near the base with a dusky spot. The minnow appears first in March, continues until Michaelmas, and then betakes himself to the mud, weed, roots, or wood in rivers, to secure himself from floods and fishes of prey. They are usually full of spawn all the summer, (for they breed often) and quickly arrive at their growth and perfection. Although so diminutive in size, the minnow may be compared, for the excellency of its taste, to many of the most famed fish. To the young sportsman, who has not possessed himself of the patience requisite to form the angler, the minnow yields plenty of amusement. They will, in hot weather, bite eagerly all day, and are frequently drawn out of the water from their adhering to the end of the worm, without being touched by the hook; the best way to catch them, is to have three or four very small hooks, baited with the least red-worm, or a piece of one, and a crow quill float; fish deeper than mid-water, or near the ground in shallow places, in eddies, and at the sides of small streams.

Minnows are very excellent baits for many fish, and when wanted in haste for that purpose, a small meshed casting-net will save much time and trouble, as enough for a day's diversion may be caught at a throw or two in shallow streams.

MIRE-DRUM. See **BITTERN**.

MOLTEN GREASE, called also **MORFOUNDER,** or **BODY FOUNDER.** This disorder is produced by too great, sudden, or powerful exertions, when a horse is not in proper condition: as in strong and severe hunting, long and speedy journeys, or hard driving in carriages, when the animal has been just taken from grass, loaded with impurities: just out of a dealer's possession, full of light flatulent food; or when naturally too full of flesh for violent exercise. In such cases, from the internal heat, increased circulation, and temporary inflammation, the fat seated upon the membranes in various parts of the body undergoes refraction and rapid solution, making distinct efforts for discharge by the different emunctories. The proportion nearest the vessels becomes absorbed, and there is produced some degree of fever; another part makes its appearance in the excrements; a third portion fixes upon the lungs, and obstructs respiration; to these a laxation of the intestinal contents succeeds; and, lastly, a looseness or scouring; so that in the present instance we plainly perceive the possibility of almost a complication of disorders originating in a single cause, and the foundation of that cause—indiscretion.

The symptoms are in different subjects, more or less violent, according to their state and condition at the time of attack;

varying in all, in proportion to the parts most affected by the original cause. Wherever the solution has proved most partial, the effect will become predominant; as, for instance, upon the bowels, lungs, or circulation of the blood by absorption. In the first, great pain attends the laxation or looseness; in the second, great difficulty of breathing from the expansion of the lungs may produce symptoms of inflammation there. And when the mass of blood is generally affected, and preternaturally loaded, fever must consequently ensue. These symptoms, as before observed, all vary in different subjects; but one is *pathognomonic* or *invariable* in all, which is the general incorporation of a greasy substance with the excrements, nearly similar to the separated particles of congealed oil in frosty weather; previous to the entire solution of the intestinal contents, and so long as the dung retains its usual form, the greasy hue appears only upon the surface, but as it advances in disease it becomes more intimately united.

So soon as ever these symptoms are perceived, proper methods should be taken to relieve nature from the threatened oppression, by such evacuations as the predominant circumstances direct; at any rate, let plentiful bleeding be the first step to reduce present, or prevent approaching, inflammation. If fever has not come on too rapidly, give, so soon as circumstances will permit, the following mild laxative drink:

Take of Senna, two ounces;

Boil it a few minutes in three quarters of a pint of water, with three drachms of ginger bruised; then strain and dissolve in the liquid,

Lenitive electuary, four ounces;

Soluble tartar, three ounces; add

Tincture of senna, six drachms;

Tincture of jalap, one oz. Mix.

But should the horse be strong and powerful (the disease being in its infancy), give without delay the following purging drink, repeating it in three or four days, if present appearances justify the practice.

Take of Senna, two ounces;

Infuse it in a pint of boiling water with

Salt of tartar, two drachms; add

Vitriolated magnesia (Glauber's salt), four ounces;

Cream of tartar, two or three drachms.

Dissolve and make the drink.

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If the patient be greatly depressed, with palpable fever, disquietude, loss of appetite, and internal painful sensations, make use of the following clyster, which may be easily prepared.

Take of Water gruel, two quarts;

Coarse sugar, half a pound;

Common salt, a handful;

Olive oil, four ounces.

Mix and inject tolerably warm.

To attenuate the blood, relieve the lungs, and take off the load from the circulation, as well as to mitigate all symptoms of fever (if such there are), adopt a cooling plan of treatment, with the assistance of bran water or pectoral decoction, especially if the lungs are much oppressed, or the approach of inflammation apprehended. The appetite must also be attended to, and solicited in every stage of the disease by comfortable mashes. The advice of a veterinarian is indispensable.

MOON-BLINDNESS. A disorder in the eyes of a horse, so denominated from its having been thought to increase or decrease, according to the course of the moon.

This generally happens when a horse is turned five, coming six, at which time one eye becomes clouded, the eye-lids being swelled, and very often shut up; and a thin water generally runs from the diseased eye down the cheek, so sharp as sometimes to excoriate the skin. The veins of the temple, under the eye, and along the nose, are also turgid and full of blood, though sometimes it happens that the eye discharges but little.

Moon-blindness scarcely ever admits of a cure. It generally takes place while the horse is young, and sometimes has been attributed to the pain in cutting the teeth.

The inflammation in this disorder comes and goes till the cataract is confirmed, and then all pain and running disappear, and the horse becomes totally blind, which is generally in about two years.

There is another kind of moon-blindness, which is also the forerunner of cataracts, where no weeping of the eye attends. The eye is never shut up or closed here, but will now and then look thick and troubled; at which time the horse sees nothing distinctly. When the eyes appear sunk and perishing, the cataracts are longer in forming, and it is not unusual in this case for one eye to escape.

These cases generally end in blindness of one if not both eyes: the most promis-

ing signs of recovery are, when the attacks come less often, and their continuance grows shorter; and that they leave the cornea clear and transparent, and the globe plump and full.

MORTIFICATION. This state, in a physical sense, with either man or beast, is the total cessation of vital heat in any part of the body or extremities, which then becomes insensible, and followed by putrefaction. When a mortification arises from some external injury done to the part, it is not preceded by a gangrene, but is produced by an absolute stagnation of the blood and juices, and all the injured parts become insensible and putrid at the same time, without any previous inflammation. A mortification arising from some internal cause, or a deficiency of natural heat, comes on in the same manner, but is more tardy in its progress, although it exhibits similar appearances; but the nature of the disease may be readily discovered. When an external injury is the cause, if an incision is made early in the diseased part, it will be found insensible, and nothing but extravasated blood will be discharged. In all cases of mortification, the disease, with its concomitant symptoms, proceed with a rapidity that sets every medical interposition and exertion at defiance.

Dr. Kirkland well observes, that it is very proper to distinguish betwixt local gangrenes inclining to spread, and gangrenes from a bad habit; on which he observes as follows:—"When the mortification arises simply from injury done to the limb, it is not preceded by a gangrene, but comes on in consequence of an absolute stagnation of the blood and juices alone; and accordingly the skin, and all the injured parts, become dead and putrid at the same time, without any previous emphysema. A mortification arising indeed from a weakness and deficiency of native heat comes on in the same manner, only more gradual, with the same appearances; but the state of the patient will easily lead to the nature of the disease. When external injury is the cause, if an incision is early made, the part is insensible, and no other than extravasated blood is discharged. In this kind of mortification the countenance is serene, nor does any other fever supervene, but such as is common to contused wounds; and, unless the affected part is very near the body, the disease slowly extends itself by the acrid fluids corroding the neighbouring parts in the manner of a caustic, till

matter enough is absorbed to contaminate the whole mass of blood. But a stop may be always put to local sphacelus; for a mortification rarely arises merely from the injury done to the part, which would not give way to proper management.

When a mortification arises from an internal cause, that is, from a gangrenous disposition of the juices soon after the injury is received, whether a large wound is made by external violence, or a small wound by protusion of a broken bone, the lymph which stagnates about the wound, immediately inflames and corrodes the vessels which contain it, when air-bubbles in the adipose and other membranes are instantly set at liberty; which air-bubbles, by increasing the inflammation, are increased, and extended immediately upon the smallest degree of obstruction taking place all over the limb, &c. an emphysema often first discovering the tragedy that is acting under the skin, not yet apparently diseased. A fever at this time frequently comes on, accompanied with a delirium, great dejection of spirits, and often a particular wildness in the looks; the pulse is either quick, low, weak, and fluttering, or quick, unequal and hard, and the scene is frequently closed with a rapidity that will not admit of assistance. If an incision is made into the affected part, when the air-bubbles are first formed, it is sensible, and blood is discharged from the arteries, in a florid state, as free as usual: the adipose membrane is of a darkish yellow colour, and the muscles only appear browner than common. Afterwards the skin becomes inflated, and the muscles, not yet having lost their shape, frequently force themselves out immediately upon making an incision, with a large discharge of wind, and a quantity of frothy matter: the blood in the vessels is now turned to a black coagulated mass; the adipose membrane, and the membranes in the interstices of the muscles and fibres, and the muscles themselves, putrify; and, lastly, the skin also becomes livid and putrid: from all which, it is evident that a gangrene brings on a sphacelus, while the blood is yet circulating in the vessels."

The usual signs of a present gangrene are, the sudden removal of inflammation (when inflammation attends); the lessened sensation of the part, for the skin does not so speedily mortify as the cellular membrane; hence, till the skin is destroyed, there is a little feeling. A pale,

cineritious, dark, livid or black colour, which is always worse as it recedes from the pale to the black. Softness and flaccidity of the parts, so as to retain the impression made by the finger: pustules or blisters, full of lymphatic, yellowish, or reddish ichor; this is generally accounted the pathognomonic sign of a gangrene on the external part of the body.—When a gangrene is induced by cold, an itching, and a violent sense of puncture, together with intense redness, soon succeeded by blackness, indicate mortification: the cold produces first a paleness, which is succeeded by redness, accompanied by a troublesome pungent pain, or an uneasy itching. Then the redness is increased to a purple colour, and afterwards the part becomes black.

The remote cause is, the reduction of the vital heat in the part to a certain degree below that which health requires.

The immediate causes are, violent inflammation, which, by the heat attending, so distends the cellular membrane as to compress the vessels, stop the circulation in the adjacent parts, and destroy the vital action there. The acrimony of the juices, by rupturing the vessels in an inflamed part, occasions an extravasation of blood, which, putrefying, produces a mortification. A contusion or wound of the spinal marrow, by preventing any further influx of the vital heat to the parts below where the injury is received, causes a mortification there. External compression, intense cold, compression from tumours internally, poisons, &c. produce the same effect.

These doctrines obtain no less in quadrupeds than in men, though the evidence in proof of them cannot, of course, be so complete.

The indications of cure are, to confirm the strength, or to raise and maintain the vital heat a little above the natural healthy degree,—to prevent the absorption of the putrid matter into the veins. Against the progress of gangrene in the human subject, it is found, that cinchona (the Peruvian bark) is the only known specific; but yet its use is not to be indiscriminately admitted of in every case. In habits that are lax and feeble, no objections can occur to prohibit it; but in inflammatory habits, nitre, or mineral acids, should accompany it if given, and great caution is necessary before it is directed. If the inflammation is considerable, the mineral acids are more proper even than the bark. If the pulse be strong, large,

and hard, and the extremities of the body are warm, the urine red and high coloured, the circulation is sufficiently strong, so need not be increased; but if the pulse be weak, and the symptoms indicate a defective vital heat, cordials will be necessary.

Mr. Pott observes, with his usual sagacity, that a mortification proceeds from a circulation that is too rapid, or too languid; that, in the first case, bleeding and diluters, and in the second, cordials and invigorating medicines, must be prescribed. When a mortification is from an internal cause, there is usually great pain, and opium is directed to be freely used. This should be done whether the cause is internal or external; in these cases, opium is the greatest cordial known.

How far these remedies may be expected to succeed in the horse and other animals is yet to be ascertained. The power of opium on the horse has been denied, and even that of bark called in question.—May not the metallic salts be employed for the latter? It is to be observed, indeed, that though mortification very commonly terminates the diseases and lives of brutes, it is seldom thought worth while to make any attempts to arrest its progress. Perhaps it is because that progress is usually very rapid; perhaps from a well-founded suspicion of the insufficiency of our remedies.

MOULTING. When birds change their feathers they are said to moult.

MOULTING. This term is very appropriately used by Mr. Clark, of Edinburgh, to denote that natural process by which horses and other quadrupeds cast their hair. We shall follow that judicious writer in our remarks on this subject.

Horses, towards the end of autumn and beginning of winter, exhibit signs of some particular change about to take place in their constitutions; and this, at the same time, is attended with a degree of faintness or weakness mostly observed at that season. This, our author supposes, may arise from a variety of causes combined together; but the principal one, he apprehends, may proceed from that of moulting; for, although horses in general do not cast their hair at this season as they do in the spring, yet, as a considerable change takes place in its thickness and length at this period, it may properly be called their moulting season. "Horses of all colours, (says Buffon) like most animals covered with hair, moult or cast their hair every year, commonly in the spring, and sometimes in the autumn.

As they are then weaker than at any other period, they require more care, and should be more plentifully fed." The diseases that prevail at this period, in horses, are noticed by Mr. Clark in the following way:—

"As those horses (says he) that are kept in warm stables, and well fed through the winter, are hearty and vigorous in the spring, when the season is gradually turning milder and warmer, their moulting at this season is not attended with that faintness, &c. to which they are liable on their moulting towards the end of autumn." The reason of this the author attributes to the food of horses, which in the spring is dry, producing richer and better nourishment; also to the change of the season which then takes place, and which is more agreeable to their constitutions. Towards the end of autumn, he observes, it is very different with the generality of horses, and especially with those that have been fed with new hay, new grain, or late grass, and, at the same time, have undergone severe labour. Such kind of food, abounding too much with watery juices, produces less nourishment, and causes a general laxity of the muscular fibres of the whole body; and hence arises the increased languor and weakness so generally prevalent during the time of moulting.

It is observed (continues the author) that horses kept in warm stables, and well fed, moult early in the spring; those that run abroad at grass moult much later. But if the former should be exposed to cold winds or rain for any length of time together, by being turned out to pasture, or otherwise exposed to cold weather, after they have once cast their winter coat, it appears that their hair will then grow thicker and longer, the same as it does in the beginning of winter, and continue so till the season grows milder, or that they are kept in warm stables: in this case, such horses may be said to have moulted twice in the spring."

The cold and moisture of the weather, at this season, in Britain, are likewise adduced as a farther cause, contributing to increase this indisposition by occasioning a constriction of the pores of the skin; for, at this period, the hair of the generality of horses stares, whilst, at the same time, the skin is commonly dry and hard, or the animal is what is called hide-bound. They sweat, indeed, most profusely when put to hard work, merely through weakness and relaxation; yet that natural in-

sensible perspiration which produces a shining and smooth appearance on: he coat, seems to be almost suspended. Under such circumstances, they are disposed, upon any irregular management, to fall into diseases of various kinds. From the general constriction of their pores, that fluid which ought to pass off by insensible perspiration is retained; hence, the quantity of fluids in the vessels being increased, whilst the muscular fibres through the whole system are relaxed, a deranged state of the circulation takes place, and hence proceed swellings of the legs, greasy heels, &c. so common at this season of the year.

On the other hand, horses that have had the early spring grass, and are afterwards kept on hay, with a good allowance of grain, and daily accustomed to moderate exercise, suffer no material injury from moulting in the autumn, further than their being more liable to catch cold at this time, from the alternate changes they are exposed to, before their coats of hair have grown sufficiently thick to resist the cold.

Robust horses, at grass through the summer, if exposed to active exercise, are liable to many diseases about the time of moulting, as the interval from the time they are taken from grass, and the moulting, is too short to admit of their bodies being prepared to perform these exercises with safety to themselves. Hence they fall into that languor, &c. peculiar to this season; and, if left in the stable too much at rest, their gross habit of body disposes them to fever, disorders of the lungs, swelling of the legs and glands about the throat and jaws, and running sores, &c. nor are they able to undergo common exercise, without being jaded.

Horses that run at grass through the summer and autumn, are still in a worse situation. These are not only more liable to the foregoing diseases, from their very lax habit of body, but are less fit for active exercises of any kind, and require a longer time to be brought into a proper state. This period, in particular, proves critical with them, and, indeed, they generally fall victims to disease if too much worked.

It happens too, that, in the situation above mentioned, the means required to render horses fit for active exercises, and to carry off the appearance of swelling of the legs, &c. are evacuations of every kind, such as bleeding, purging diuretics, &c. At the same time, these methods

are sometimes hurried on with a degree of haste that would even affect a sound horse, of the most hardy habit of body, at any season, and reduce him to great weakness. The moulting now comes on, which still adds to it. In these circumstances, the constitution receives too great a shock to be resisted; and hence many horses fall a sacrifice to this treatment, or, if they survive, they are attacked with some chronic disorder, which renders them useless to their owners.

"The end of autumn (says Mr. Clark) likewise proves very severe on those horses whose flesh and strength are exhausted from continued hard labour, or violent exercise, as posting, &c. through the summer and autumn; when the moulting comes on in this low, spiritless state of body, it carries off great numbers of them, that by proper care in moderating their labour, together with good nursing, and feeding them with rich boiled food at this time, their lives might be preserved. Such soft nourishing food becomes the more necessary for horses of this description at this particular period, in order to support them under the moulting, as the serous or watery parts of their fluids having been drained off by the violent perspiration they were exposed to, their muscular fibres are then too rigid, and the blood too thick, for circulating so freely as it ought to do through the fine capillary vessels; hence they are disposed to fall into those disorders which proceed from this cause.

Many of those horses that are thought to be worn out from posting, &c. at the end of autumn, when they come to be fed with boiled food, or with potatoes or carrots, and continued so through the winter, recover surprisingly. This last-mentioned food recovers their flesh; it renews their fluids in general, and promotes all the natural secretions: it operates on them nearly in the same manner as the spring grass; it purges them gently on the first use of it, and corrects the whole habit. On changing their food to that which is hard and dry, as oats and beans, and increasing their exercise gradually towards the spring, they soon become fit for the most active exercises, without any previous preparation from medicine, &c.

This season likewise proves destructive to aged horses: when the green food is exhausted, they are then obliged to feed on hard dry food; in some, the digestive powers may not only be weaker, but the teeth, at the same time, may be defective,

in not breaking down the hard food so minutely as it ought to be, in order to render it fit for digestion, and the nourishment of the body.

After illustrating this by a case in point, Mr. Clark proceeds to observe, that "As the disorders which commonly prevail at this time amongst horses, proceed in a great measure from catching cold, together with the sickliness attending the moulting, horses are differently affected, according to the circumstances of habit of body, and the treatment they may be exposed to; some are affected with colds in the head, attended with inflammation and swelling of the glands about the throat and jaws, which too frequently, from want of proper care, terminate in the glanders; hence this disorder is frequent at this season. Some horses are affected with coughs, and other disorders of the lungs. Rheumatism is likewise common in different parts of the body, particularly in the neck, which is called the chords. Epidemical diseases frequently originate at this period, and continue with more or less violence through the winter, and sometimes till towards the spring. Fever is likewise common, together with a variety of other complaints, which would be tedious to mention. All these disorders are forwarded from the above circumstances, together with horses breathing a heated foul air in their stables, and their bodies exposed suddenly to the chillness of the weather, before their coats of hair have grown sufficiently thick to resist the cold, &c. for it is observed in those horses which run abroad in the fields day and night, that they moult much sooner in the season; by which means they are sufficiently guarded against the severity of the weather when it becomes cold and damp; neither is it observed that they are so liable to be affected with those epidemical diseases which prevail amongst horses that are kept in too warm stables. This sickly disposition amongst them continues with more or less violence till such time as the weather turns more favourable and dry, or that the frost sets in. It commonly commences, if the weather is moist, cold, and damp, about the middle of October, and continues till towards the middle of December: after which, if it is favourable, horses generally become more lively and vigorous, and acquire their usual spirit, and healthy appearance," &c.

From what has been said, it may be observed, that as horses are generally

more weakly at the time of moulting towards the end of autumn than at any other season, their labour, when circumstances will admit, should be moderate. "Their feeding should be increased in order to strengthen and support them during this period. It ought likewise to be of the very best quality, as old hay, old grain, that is, of the preceding year's growth; and if the grain that is given them was broken down in a mill, it would prove more nourishing than in any other way it could be given them. New hay, or new grain of the same year's produce, ought to be avoided, as it is extremely hurtful to horses, that must undergo severe labour, or active exercises, of which we have formerly taken notice. Good rubbing and frequent dressing are likewise of great benefit.

All evacuations, such as bleeding, purging, rowels, &c. ought to be administered with caution, as such prescriptions contribute greatly to increase that natural weakness, &c. formerly mentioned, which prevails in the constitution of horses at this period. At the same time it is to be understood, that horses are not by any means to stand too much at rest in the stable. Fresh air, with moderate exercise, when the weather will permit, being absolutely necessary to promote their health; neither is the proper use of the above prescriptions to be neglected when they are thought necessary, and prescribed with judgment. All the precautions formerly mentioned, with respect to their stables, ought to be attended to, that they are kept clean, well ventilated, and yet moderately warm. Body-cloths, however necessary they may be thought for keeping their coats of hair fine, smooth, and clean in the stable, ought to be dispensed with. As horses cannot with propriety be ridden with them, they must therefore be stripped the moment they are to go abroad, even although they should happen to be in a strong perspiration at the time; by which means they are liable to catch cold, &c. And surely the health of a horse is of much more consideration to his proprietor than the looks or appearance of his coat of hair, especially when it is considered, that good rubbing and frequent dressing will produce the same effect on the appearance of the hair. At the same time that this operation will in a great measure prevent the consequences above mentioned, of rendering horses so very liable to catch cold."

MOUTH. The external parts of the mouth are the lips, the beard, the end of the nose, being a continuation of the upper lip, and the chin. The internal parts are the bars, the tongue, the channel, the palate, and the teeth.

The mouth of a horse should be moderate in size; for when it is too wide, we find much difficulty to bit a horse, so that he may not "swallow it," as the term is: and, if he has a little mouth, it will be difficult to get the mouth of the bit rightly fixed in it.

To have a good mouth, he should have a well raised neck; and if it be somewhat large and thick, it ought to be at least well turned. But if his jaw-bones be too close, and he have also a short and thick neck, so that he cannot place his head right, his having a good mouth will avail but little.

The compliance and obedience of a horse is owing, partly, to the tender or quick sense of his mouth, which makes him afraid of being hurt by the bit; and partly by his natural disposition and inclination to obey. The mouth is called sensible, fine, tender, light, &c. Some horses have so fine a mouth, that they stop if the horseman does but bend his body behind, and raise his hand, without staying for the pull or check of the bridle.

1. A mouth is said to be *fixed* and certain, when a horse does not chack or beat upon the hand.

2. A *false* mouth, is a mouth that is not at all sensible, though the parts look well, and are all well formed.

3. A mouth of a full *appui*, or rest upon the hand, is one that has not the tender nice sense of some fine mouths, but nevertheless has a fixed and certain rest, and suffers a hand that is a little hard, without chacking or beating upon the hand, without bearing down or resisting the bit, insomuch that he will bear a jerk of the bridle without being much moved.

For the army, provide a horse with a mouth that bears full rest upon the hand; for, if you take one of a tender mouth, and another horse run against him in a fight, he will be apt to rise upon his hind-feet, which a horse of a hard mouth would not do.

4. A mouth that bears more than a full rest upon the hand, implies a horse that does not obey but with great difficulty. You will not readily stop such a horse, for his mouth is above a full *appui* upon the hand.

MULE. The mule is that well-known cross-bred animal, generated between an ass and a mare. Some are, but very rarely, produced by the horse with a she ass; but they are smaller, weaker, and of less utility, consequently not bred with design. The mule, when well descended, and well fed, is adequate to a variety of services, and will, if taken the same care of when young, nearly reach the size of a moderate horse. Many have measured fifteen hands high and upwards; they are exceedingly strong and sure-footed, which qualities render them very valuable in the different parts of Europe where the countries are mountainous, and the roads stony, as they will travel with the greatest ease and security where a horse would be very likely to break his neck. They are likewise exceedingly useful in harness, and will draw immense weights for long journeys without displaying the least fatigue.

The mules bred in Spain, with a proper attention to their intentional use, whether for travelling or show, are bred between very large he-asses and Spanish mares; these are exceedingly tall, stately, and their colour inclining to black. A still larger kind are, however, produced by these asses out of Flanders mares, some of which have been known to reach seven-

teen hands high, and of equal apparent strength to our common carriage horses; but they are much stronger than horses of their own size, will bear infinitely greater hardships, and are kept at a much less expense; as well as an additional recommendation, that they are not so subject to diseases, which is a material consideration to the justification of their more general use. They are found equally fit for the saddle, as for the more laborious employments of draft and agriculture.

What few mules are produced in this kingdom, at least the major part, may be probably bred more from chance than design, by the common intermixture and unrestrained association of asses with mares, upon the large wastes and commons in various parts of the country, where they are frequently seen in the act of propagation. Of mules, it is to be observed, that, although such intermediate animal is produced between the two which generate the third, there the prolific property ceases, and propagation goes no farther. Thus it is with a part of the feathered creation; it is known by those who breed, that a cock goldfinch, or a linnet, will pair with a hen canary, and produce young; but in that offspring the power of procreation entirely ceases, and they are therefore termed mules.

MULLET, THE, is found in great plenty on several of our sandy coasts, and in particular haunts those small bays that have influxes of fresh water; they are very cunning, and when surrounded with a net, the whole shoal frequently escapes by leaping over it; for when one takes the lead, the others are sure to follow.

They come in great shoals into the rivers with the tide during the summer, and keep rooting like hogs in the sand or mud, leaving their traces in form of large round holes; but return back when the water ebbs, never stopping in the rivers. They are something like the dace in shape, yet much thicker; the head is almost square and flat on the top; the nose blunt, lips thick; they have no teeth, only the upper lip is a little rough, as is also the tongue; between the eyes and mouth is a callosity: the pupil of the eye is black, encircled with a small silvery line; the colour of the back is dusky, varied with blue and green; the sides silvery, marked with broad dusky parallel lines, reaching from head to tail, which is much forked; the scales are large and deciduous, and are also upon the covers of the gills and head, and extend as far as the nostrils. The largest are nearly half a yard long, and the flesh is excellent.

The same artificial flies as for trout are to be used, and they are to be angled for as the tide comes in, before the water gets thick, with those in preference to any other bait; when the water is discoloured, use a small red-worm or gentles, and fish within two feet of the bot-

tom with strong tackle, as the mullet when hooked will struggle vigorously.

MUTE. A dog is said to run mute, when he pursues his game by the scent without giving tongue. Some hounds are too free with their tongue, they open perhaps without any scent, and are called *babblers*; so hounds are said to be mute when they run with the scent without giving tongue.

MUZZLE. Muzzles are of two sorts; the one called a dressing, the other a setting, muzzle. The first is of the same form as the last, but of different construction, having a few straps crossing each other transversely, and so united as to be about nine inches in depth, and of a shape to cover the nose of the horse so high; to which are annexed two straps; one of which passes up the cheek on each side,

and buckles at the top of the head behind the ears; the use of this is to dress such horses in as are disposed to vice with the teeth, as well to prevent the manger from injury, as the groom from danger. The other is in little use, except in training stables; having a number of round holes punched in every part of it, for the free admission of air, and is brought into use on those nights preceding a horse's running engagement on the following day; as well as before taking a sweat, or running a trial. It is called a setting-muzzle, because, when put on, the horse is said "to be set" (that is, to fast); and the intent is to prevent his consuming the litter, or obtaining more food than what the training groom judges to be expedient.

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NAG. In common country acceptance, implies a riding horse or roadster, in contradistinction to a carriage or cart-horse.

NAIL. A small flat pin of iron, by means of which the farrier fastens a horse's shoe to his foot. Mr. Moorcroft, in his "Account of the various methods of shoeing horses," observes, that eight nails for each shoe are enough for saddle and light draught horses; but for such as are employed for heavy draught, ten are required. A smaller number, it is found, do not hold the shoe sufficiently fast; and a greater number, by acting like so many wedges, weaken the hoof, and rather dispose the crust to break off, than give additional security.

The manner of disposing the nails, says he, has differed considerably at different times. Some writers have directed four to be placed on each side of the foot, and the hindmost near the heel; leaving between the two rows of nails, a considerable space of the fore-part of the foot without any.

The nails thus placed, certainly confined the foot at the sides and heels, left the toe at liberty, and assisted materially the effect of the sloping surface of the common shoe, in altering the form of the foot from a nearly round, to a lengthened figure.

Latterly, it has been strongly recommended, to place the nails principally at the fore part of the foot, in order to pre-

vent the heels from being confined. And certainly this is a wiser practice than the former; but as the foot should rest on the shoe in the whole extent of the crust, it may be thought, that the best way of connecting them in every part alike, would be that of placing the nails at equal distances from each other, in the whole round of the shoe.

However, the objection to this is, that when the foot strikes the ground with considerable force, the back part of it becomes a little broader than when it is in the air, or when the foot is at rest. This spreading is not considerable, nor does it extend far along the sides of the foot, but it is sufficient to act upon the hindmost nails when near the heels; hence arises the necessity for there being a greater distance between the last nail and the heel of the shoe, than between any two nails. Accordingly it may be laid down as a general rule, that the last nail should not be nearer the heel, than from two inches to an inch and a half.

Such a distance has been found sufficient to prevent the heels being confined; and not sufficiently great to allow the shoe to spring, and loosen the last nails, as frequently happens when they are farther distant from the heel.

All the nails should be at equal distances from each other, except the two in front, which should be a little wider apart than the rest: this, however, is not a matter of essential consequence; but it is

of importance that there should not be any nail in the middle of the toe. For, generally, the action of the foot on the ground has a direct tendency to push the shoe, as it were, backwards along the foot; and it sometimes happens that the shoe is actually thus displaced; in which case it necessarily follows, that the nail in the middle of the toe must be driven immediately against the sensible parts behind it; whilst the rest of the nails in a great measure follow the line of the crust, and thus avoid doing mischief to the parts within.

The nail-holes on the upper surface of the shoe should come through the seat, close to the edge of the bevel, that the nails may have a proper and equal hold on every part of the crust, which will be shewn by the clenched ends being each equally distant from the shoe.

As the nail-hole is always made with a taper and square-pointed punch, a nail with a head of the same form will fit it better than one of any other shape.

The most general practice to prevent slipping in frosty weather is called roughing or sharpening; which is merely making two caulking to each shoe. This is liable to the objection before stated, of throwing the weight too much on the toe, and of the inside caulking sometimes wounding the opposite leg. And it is farther objectionable, because the caulking soon wear down; as, in order that they may take the necessary hold on the ground, they are made sharp and thin. They therefore require being frequently renewed; and hence it generally happens, that a horse which is much worked in frosty weather, has his feet more broken and injured than in the common wear of many months.

To prevent the necessity of frequent removes, several expedients have been put in practice. Sometimes a few nails, of a larger size than the rest, have been so put in, that the heads stood considerably beyond the level of the shoe; but when these did not break off, as was often the case, they soon wore down.

At other times, nails with large heads, tapering to a point, were screwed into the web of the shoe. Of these, one was usually placed at the toe, and one at each heel. And by this contrivance of the screw, it was imagined, that the nails might be easily replaced when worn out. They are apt, however, to break off at the neck, and are too expensive for common use.

There is, notwithstanding, another plan,

which, as far as it has been tried, justifies the author in recommending it.

This consists in having nails with a lozenge head, or what may be called a double countersink, terminating in an edge, instead of coming to a point. This greater breadth of surface, prevents its being rubbed away as fast as a point; the thickness of the middle gives it strength; and the regular taper to the shank, causes it to apply exactly to the sides of the hole in the shoe, by which it is equally supported, and prevented from bending or breaking. There should be four nails to every shoe; that is to say, two in the fore-part, and one at each heel.

The heads of these nails must be struck in tools, or dies; the four holes in the shoe must be made to correspond with the neck of the nail; and when the nail is driven, the workman must cover the head with a tool, which will receive its upper part, and prevent its being injured by the hammer.

These nails are, in effect, so many caulking, with the advantages of allowing a more level tread; of being easily replaced, by putting new nails in the old holes; and, by being at a distance from the heel of the shoe, they are not so likely to hurt the opposite leg.

NARES. The nostrils, particularly applied to birds.

NARROW HEELS. See **HEELS**, **NARROW**.

NAVICULAR DISEASE. See **NEUROTOMY**.

NEAR-SIDE. The near-side of a horse is the left-side, and of course the side on which the rider mounts. The right-side of the horse is always called the off-side. It is the invariable custom to say, that horse is lame of the "near-leg before;" the other, is evidently defective in the "off-leg behind."

NECK. That part of the animal by which the head becomes connected with the shoulders. This is long in all quadrupeds, in proportion to the length of their legs, or the distance from which they have to reach their food from the ground. The neck of a horse should be lean, with but little flesh upon it; and to be well shaped, it should, at its going from the withers, rise with a slope upwards, diminishing by degrees towards the head. In mares, it is a good quality to have their necks somewhat strong, and covered with flesh, because their necks are generally too fine and slender.

Deer-necks, ewe-necks, or cock-throp-

pled, are those, in which the flesh that should be next the mane, is set quite below, and next the throat, which renders the neck ill-shaped and ugly.

Mr. St. Bel, describing the defect in the proportion of the neck of the celebrated horse Eclipse, says,—“The faults of the neck are in general the consequences of the defects of the head ; for it is an uncommon thing to see a short head with a long neck, as, on the contrary, to see a long head with a short neck.

If the neck is too short, the fault will be an addition to that of a too short head. The case will be the same if the neck is too long ; for the head will naturally weigh heavier, in proportion as it is removed from the fulcrum or rest of the lever, supposing it to be well proportioned. Its length should be nearly one third of the height of the body, measuring from the withers to the ground. The neck will be well proportioned if it measures one head and a half from the nape to the withers.”

NEEDLE-WORMS are small white worms with a sharp-pointed head, having their seat in the rectum of a horse, from whence they are frequently discharged with the dung, but are difficult to dislodge and extirpate entirely. By their unceasing action, (twirling and twisting in the dung when expelled,) it is natural to conceive, how very much they irritate and distress an animal ; of this there needs no greater proof, than the excrements frequently and suddenly coming away in a liquified state, as if the horse was under a course of physic. They are sometimes not only reduced, but eradicated, by antimonials ; but as this is not always to be relied on, mercurial physic is justified upon the broad basis of experience, as the only infallible mode of extirpation.

NEIGHING. The peculiarities of the voice in different quadrupeds appear to consist principally in the number and form of the laryngeal sacs. There are usually three of these, one of which appears under the vault formed by the anterior boundary of the thyroid cartilage, having its aperture near the root of the epiglottis. The other two are oblong sinuses contained between the lateral parietes of the glottis and the thyroid cartilage, and are covered in a great measure by the arytenoidei muscles. In the horse (says Blaine) these lateral sacs are very long and wide, and are not unlike the usual ventricles of the glottis. The aper-

ture of the outer cavity is very large in the horse : in the ass the opening into each of the three sacs is a small hole, and the anterior sac forms a bag-like cavity. In the mule these organs differ, but their anatomical formation is in general blended between the horse and ass. The various sounds emitted by animals are named arbitrarily, without reference to the noise heard : thus we say the horse neighs, and the ass brays. Neighing appears produced by expirations, as are most of the tones of voice from the horse. The vibrations produced by the resonance of different sized cavities, assisted by the tremors of the cartilages of the nostrils, produce the compounded sounds which are emitted. *Knuckering*, as it is termed, is only a lesser neigh, with shorter, deeper, and less forcible tones, and expresses affection and joy. The horse has one acute sound, produced by the act of inspiration, which usually expresses either play or lust ; but in most other instances, sound in the horse is produced from expirations ; nor does it appear that the tongue or teeth are much concerned in the modulations of his voice ; but in dogs they are very much so. In the ass, the principal sounds are *braying*, and perhaps he differs in no respect so much from the horse as in the sounds he produces ; and this is another very strong proof, that an ass is not a horse degenerated, as has been by some supposed. Braying appears to be produced through the mouth by a convulsive displacement of the velum palati, assisted by the vibrations occasioned by the extent of the laryngeal sacs, and by their being so much separated from the cavity of the larynx. It is effected by alternate inspirations and expirations ; the inspirations forming half tones, and the lengthened notes being formed of expirations.

Neighing is an exclamatory sensation by which the horse evinces either anxiety, suspense, or pleasure ; but the passion he feels is expressed with much more force and energy in the two first, than in the latter, which is ejaculated with low and vibrative sounds, too expressive to be mistaken by even the inexperienced naturalist, or least attentive observer. Being separated from a companion with whom he has been accustomed to stand in the same stable, and to accompany each other abroad, his inquiries are loud and incessant upon the road or in the field ; and if made upon a race course, amidst a thousand horses, they are so completely masters of their own language, that they can

instantly distinguish the exclamation of each other from the innumerable neighings of all the rest. Finding themselves answered, at whatever distance, they display their eagerness to get together; and as they approach each other, the pleasure becomes perceptible in the way before described, and by the experienced sportsman so perfectly understood.

NETS FOR FISHING. Of these there are great varieties; and almost every individual believes he has a peculiar plan of forming them superior to his neighbour: no set of men are more bigotted to their own opinions upon this subject than the London net-makers, some of whom, however neat their work, and apparently well disposed for the intended purpose, are so far from being competent judges, as scarcely ever to have seen many of the different kinds of net they deal in, set in water during their lives; it is not extremely probable that, under such disadvantages, they can know more than their customer's order tells them, which generally consists in desiring a net such a number of yards long, and so many feet in depth; respecting the hanging of the net, both parties are usually silent, and perhaps from the same cause. As a practical net-fisher, the compiler (than whom few men have seen, or in the water assisted more) ventures to give a few hints, which his brother sportsmen may not find unworthy of trial.

In the making a drag-net, the size of the mesh should never be less than one inch and a quarter; there should be an extent of three times in length, and twice in depth, of the plain-net, before it is hung upon the cork, and lead lines, (that is, if the drag is meant to be twenty yards long, and twelve feet deep, there must be sixty yards of net in length, and twenty-four feet in depth, for a sheet drag; if made with a cod, it must be let in with great care as to the widenings, so that in fishing it keeps a proper open centre). As drag-nets are usually hung, any one who is in the water when they are used, will feel, when the lines are hauled, the lead line above the calf of his leg, and frequently above his knee, and that continued to very near the bosom of the net. There is no occasion to remark upon the chance of success such an implement affords.

Always use two, if not three, flews with the drag; one or two flews can then be kept forward, for the drag to force to; and in fishing every hole, back the drag

with a flew, that is after the drag approaches close to the first flew, of course that will be pulled on one or other side of the river; if any fish are in it they should be taken out, and so soon as the drag-net has passed, let the flew be drawn back into its former station; the fish that are disturbed by the drag (from the deficient manner in which their lead lines have been shewn to keep a regular sweep at the bottom) soon perceive an opening to escape beneath it, and in striking to their old harbours, run headlong into the back flew; the discolouring of the water from the trampling of the people in, together with the motion of some part of the drag upon the mud, all contribute to the success of this expedient, by which the best fish will always be captured.

A drag-net should always be used up the stream; however low the water in a river may be drained for the convenience of those fishing in it, there will still be a current sufficient to preserve the water clear enough for stumps and hangs of various descriptions to be avoided; besides, the drain of the water keeps the meshes of the net extended, and enables it to fish with every advantage: on the contrary, when drawing down the stream, the mudding of the water progressively prevents the discovery of stubs, &c. that would injure the net, and aids the escape of the fish, and moreover drives the net into folds, which the leaves of the weeds turning the same way not a little assist.

Flews may be described as of two kinds; the one for drawing, the other to be placed either as a stop to a drag-net, or to be set and left quietly standing in a pond or river to intercept the fish. Those for drawing should be made of stouter materials, and the lint of all should be silk: the expence is greater at first; but the compiler has had silk flews of both sorts where the lint has outlasted three sets of walling, and still remained perfectly good; it must however be understood that great care was observed in the washing and drying his nets, for silk has no peculiar power any more than hemp, to defend itself against the heat, which a few hours will generate, when thrown full of mud and weeds, and both, by such slovenly inattention, are as quickly spoiled: yet carefully managed, a silk net will endure to the utmost wishes of the proprietor; and such is the quality of silk when wet, that the fish which touches it is sure to be entangled, the texture is so pliant, that a fish is enveloped before

being sensible of it, and the more he struggles the faster he is confined.

For a dragging flew, the lint, two inches and a quarter mesh, seventy meshes deep, and fifty-two yards in length, (to be hung twenty yards long, and eight feet deep;) it will take four pounds and a half of silk.

For a setting flew, of a similar mesh, and ninety deep, with the same length of lint, and depth of hanging, five pounds and a quarter of silk; from these may be calculated any larger or smaller size. Never tan or colour flews; it renders them easier to be discerned by the fish.

The walls or trammels of flews should be at least eighteen inches square (but two feet is preferable;) those of nine or twelve inches, hung diamond fashion, are only calculated to receive a fish that strikes point blank; it is impossible for a good sized fish to get in sideways (whereby they are more entangled than by touching the flew in any other direction,) besides these small wallings render a net more cumbersome, and are for the most part useless. Flews should be very lightly leaded, the floats or corks nicely adjusted, and both leads and corks of a length and size that will prevent their getting through the meshes of the lint in any direction, and entangling it. Where the fish run very large, the mesh of the lint may be extended, always recollecting that in thread nets the materials for the lint must be three twisted, and cannot be too strong or too fine.

In carp fishing, drawing with flews is the most killing mode yet devised; they slide so lightly over the mud, and hamper the fish in their progress through the water, which the drag-net does not. The quantities of carp which the compiler has taken by this plan out of the Fobbing Fleets were prodigious; at one draught a flew of twenty yards was so loaded that nine persons could scarcely so ease it up the bank as to prevent its being broken to pieces from the number of carp, of which the smallest did not weigh less than seven, and many of them as much as eleven, pounds each fish; and it was supposed that the bulk together was upwards of seven hundred weight.

In waters where carp have been much used to nets, they become so shy, that the instant they find a net behind them, they endeavour to leap over the cork line. By drawing a second flew about three yards behind the first, they drive headlong into it, after escaping from the first. Mulletts might perhaps be more numerously taken

by this plan than any other, as they constantly leap the nets.

When fishing with flews, either in rivers or ponds, it is most ridiculous to be plunging in and beating the water. (Some employ a rope tied to a horse's skull, others have poles for the purpose, with old shoe soles nailed to the end.) Pike, tench, and perch, will more readily strike the flew when the water is undisturbed and at rest, than from all the violence that can be exerted, and carp flee to and keep in their harbours at the least noise. Flews do more execution at night than in the day, for two reasons, that the fish are then roving about upon their feed, and, that there is no uproar in the water to make them conceal themselves from expected or approaching danger*.

The Casting Net may be successfully employed in a certain depth of water, viz. gudgeon-net at four, and large meshed casting-net from six to eight feet: in the making, great attention must be paid to putting in the widenings, or the net will never open freely, however skilful the person that throws it. In preparing it for casting, it is not to be taken upon the shoulders so short as to prevent the leads having their proper swing, which is to be

* At Hudson's Bay, the Indians have a mode of setting their nets under the ice, by which they supply themselves with great quantities of fish. They first ascertain its exact length by stretching it out, a number of holes are then cut in the ice at ten or twelve feet distance from each other, and sufficiently numerous to extend the net its full length; a line is then passed under the ice, by means of a light pole, which is first introduced at one end of the holes, and with the aid of two forked sticks this pole is easily conducted or shoved from one hole to another, under the ice, till it arrives at the last. The pole is then taken out, and both ends of the line being properly secured, is always ready for use. The net is made fast to one end of the line and hauled beneath the ice, a large stone is tied to each of the lower corners, which keeps the net expanded, and prevents its rising from the bottom. In order to search a net thus set, the two holes at the extremities are opened, the line is veered away by one person, and the net hauled from under the ice by another; after the fish are taken out, the net is easily drawn back to its former station, and there secured as before for future examinations.

aided by the corresponding turn of the caster's body, at the exact moment of delivering it from his arm; and the first object is, to let the leads all break the surface at once. Many persons jerk one part of the net high in the air (which assists the spreading), whilst the other part of the lead-line drops close to the caster's foot, making a variation of some seconds in the fall of the different leads into the water: fish must be very crowded, or extremely sleepy, if they remain within the curtailed range and slow sinking of a net so cast. The nicety of the art is, to be able to cover any particular spot, and to shape the net accordingly; and no one can be deemed a proficient unless he is an *ambidexter*, and throws from either shoulder, as the turning and holes in a river may require.

For carp, or large fish, the mesh should be an inch and three quarters, and the circumference of the lead-line not less than twenty-four yards, and from that to twenty-eight: if made of silk it will sink more speedily, and of course will admit to be thrown with success in deeper water and over weeds. By baiting a place in ponds with grains, worms, or greaves, the fish may be collected, and the casting-net thrown over them: should there be much mud, let the net remain quiet some minutes, and the fish will rise from the mud, into which they have sunk themselves at the noise of the net.

N. B. A piece of crumb of bread put into the stomach of either carp or tench suspected to be tainted with the mud will absorb all the disagreeable taste, and which should be taken out before they are sent to table.

The Hoop-Net or Drum-Net is destructive. For large and deep waters, the mesh should be an inch and three quarters, the length full nine feet, and the hoops (of which that in the centre should be iron, rounded like a curtain rod, and painted red, to prevent its rusting) should be strong, and three feet high. In laying hoop-nets, place them where the water gets tolerably deep from a gravelly scour. All the infallible attraction of brass candle-sticks, yellow ribands, flowers, and looking-glasses, are superseded by the arcanum of encircling a live fish brought from other waters in each hoop-net: whether the old inhabitants approach the stranger out of vengeance or curiosity remains a mystery, but that they will run into the hoop-net to get at him the compiler positively insists. It was a secret, which a game-

keeper would not impart, until after being in his service for many years. Old Jonathan always requested to have the management of the hoop-nets left to himself, and would allow of no assistant, and his plan (which was the above) always proved successful.

Stub-Nets are very useful in catching carp or trout, when they flee to the banks. They should be made of very strong twine, inch and quarter mesh, be nine feet long, with cork and lead-line; upon which there should be plenty of each: a few widenings should be thrown into the middle, so that there may be a little appearance of a bag; the net is then to be firmly fastened (so that it stands from lead to cork, three or four feet deep) to two ash pitch-fork handles, shod with iron spikes at one end. In surrounding a stub, one spike is to remain fixed in the ground, whilst the other is thrust underneath the stub: the fish thus annoyed, try to regain the deep water, and strike into the bosom of the net, which is then hoisted up, the fish taken out, and the net put down for other trials. If the stubs are very jagged, both spikes are to be stuck in the ground as close as possible to the harbour, and the parties grope with their hands, and those fish which escape their fingers are caught in the stub-net.—*Daniel*.

NEUROTOMY, OR THE NERVE OPERATION FOR FOUNDER. Mr. Percivall, an ingenious veterinary practitioner, with some seeming propriety, having objected to the term *nerve operation* as inexpressive, has named it *neurotomy*; and, as this is at once critical and explanatory of its import, it deserves general adoption. The operation itself is practised for the relief of lameness in the feet, principally of such as are dependent on a contracted or otherwise altered form of the hoofs (the pumiced hoofs excepted). The nerves having been long known as the medium of sensation, many cases of lameness in the feet occur, which render horses useless, principally from the pain and tenderness consequent on the pressure of some pedal parts long since altered by disease, but which are not now actively engaged in a disorganizing process. This very naturally led to an opinion that an interruption of the medium through which they received their sensation (i. e. the nerves immediately furnishing such feet) might, by rendering them wholly or partially insensible, materially remove the impediment, and fit them for useful employ. Such an opinion was entertained

many years ago, and experiments to this effect were made by several ingenious veterinarians. More than twenty years since, Mr. Moorcroft informed me that he had, under this view, been dividing the metacarpal nerves above the fetlock. Similar experiments were afterwards made by Mr. Coleman and by others; but from a want of due attention to all the circumstances connected with it, the practice was not found sufficiently beneficial to warrant its continuance, and it was for many years forgotten, until revived and improved by the ingenuity and research of the assistant professor to the veterinary college. When this operation was first practised, the *reproductive power* in divided nerves, although known, yet was not sufficiently taken into account; consequently as union quickly followed a simple division of their cords, and as sensation soon followed the union, so lameness was found again to recur. But as a knowledge of the functions of the nerves, but more particularly of the peculiarities attendant on operations upon them, became familiar to veterinary practitioners, so the reason of former failures started into view; and it remained for Mr. Sewell, by applying this knowledge to an amended mode of performing the operation, to perfect the discovery, and in fact to make it his own. But the success which attended its practice in the amended state, at first occasioned a too indiscriminate application of it, as well as in some instances an erroneous mode of performing it, both which proved unfavourable to its reputation, and it consequently met with much, and, under such views and practice, deserved opposition. At length, cleared from these fetters, it begins now to assume its proper character, as a limited but valuable auxiliary to the veterinary art.

To do equal justice to the art and to the artist, it may be as well to commence by pointing out the cases in which it has been proved to be inapplicable, and those in which it may be confidently expected to prove useful. Where there is reason to expect considerable disorganization of the internal parts of the feet, as ossification, or total absorption of the articular cartilages, or diseased alteration of the bones within the horny box, or where inflammation of the laminæ may have wholly destroyed their sensibility, or where the mucous capsules have, from disease, ceased to yield any, or but a partial, supply of

synovia; in all such cases it cannot be expected to restore the mobility of ankylosed parts, nor can it restore the lost organization; but even in such cases, when morbid processes are not actually going on, but seem stationary, and the animal is rather suffering under the effects of former than of present disease, it has, by rendering the animal less susceptible to the pain of pressure, enabled him to move and exert himself with more ease to himself, and more benefit to his owner. But when an active state of disease is going on, particularly when inflammation is still present, although much disorganization may not have yet proceeded to any great length, or when ulceration of the articular cartilages is suspected, it is not prudent to apply it. Neither is it advisable when the ravages within the feet have been very considerable from any or all the causes above noticed:—on the contrary, in such cases, by removing sensation and rendering the animal willing to exert himself more than the state of the parts will allow, great aggravation of the disease has sometimes followed. For, as has been ingeniously remarked, the naturally acute sensation in the feet is kindly given as a guard to their over-exertion, both in health and under disease. Neither has it been found at all applicable to that state of feet, which at first view appears to have taken on a disease exactly the reverse of founder; that is, where the hoofs, instead of becoming preternaturally high, hard, and lessened in diameter, appear expanded in circumference, but flat, thin, and soft, particularly in the sole, which, from a concave form, has become flat or convex. In these cases, called *pumice-footed*, the operation is, I believe, invariably hurtful. Neither can it with propriety be recommended in any case until all the various means of relief have been ineffectually tried; but when these have completely failed, neurotomy has been found to render many foundered and otherwise foot-lamed horses not only useful, which were before nearly useless, but it has rendered them nearly as perfect in their mode of going as ever. Some have hunted, many have made excellent roadsters, and all have been fitted for carriage-work of every description. The testimonies of this kind detailed in the respective public communications of Mr. Sewell, Mr. Percivall, and Mr. Goodwin, to which I would recommend the inquisitive reader, will

completely remove any scepticism on the subject.

The importance of a due acquaintance with the structure and functions of the various parts of the animal body, are in few instances more exemplified than in the operation under consideration. To experiments on the functions of the nerves we are indebted for the hint, that their division would promote ease to a distressed animal and benefit to his owner; and to a more extended field of inquiry into these important matters, we owe the means of rendering this benefit permanent. Although it seems from these and other reasons which follow, as well as from the extensive experience which Mr. Sewell has had, that he prefers to practise in general cases the lower operation; yet it must be allowed that no great differences have been observed between the ultimate success of the division, whether operated above or below the pastern. It is not, however, to be supposed in either case, that some nervous communication is not kept up by interlacing fibres, from superior branches; for, without this, the common life of the parts would be endangered, and they would be subjected to decomposition and decay. It would be most unphysiological to suppose that, because the motions of the feet were operated by tendons which received their muscular contractions from above, that therefore nervous influence was not essentially necessary for other purposes. On the contrary, in my mind, there is little reason to doubt, that when the hoofs have fallen off some time after the operation, as has happened in a few instances, it has arisen from some failure in the quantity or quality of these auxiliary nervous branches, which forms an additional reason for operating below the fetlock.

The disposition to keep up nervous influence is remarkably observed in the divided portions of nerve in neurotomy. If a simple division be effected, the ends first retract, but afterwards approach each other, and an interposed substance is placed between, which becomes organized, and transmits all the former powers of the nerve. This takes place in about six weeks. Even when a portion of an inch in length is excised from the nerve, the ends endeavour to approach each other, and, though unable to accomplish this, still sooner or later, sensation is transmitted by means of an interposed matter which forms a continuity. The period when this takes place is not defi-

nite; it has occurred in a few months, and it has taken three years to do it: it is said, in some few cases, sensation has not returned at all. On the return of sensation, it now and then happens, that lameness also returns, but it is consolatory to know, that a repetition of the operation has wholly removed the secondary attack. When no lameness returns, there is reason to suppose that the disease itself is overcome, and facts have borne out the supposition. Some enlargement usually remains under the skin, from a thickening of the divided portions, which has been sometimes so considerable, as, in the high operation, to bring the part within the reach of the contrary foot in its elevation. When, therefore, it is wished to perform the division above the fetlock, it has been proposed, in order to avoid this inconvenience, to operate *above* on the outer and *below* on the inner side.—*Blaine.*

NICKING. There can be very little doubt but this operation originated in a wish to prevent the inconveniences resulting from the force with which a horse carried a long tail around him, to the annoyance of his rider. Tails were therefore first tied up in "stiff buckle;" they were then shortened or docked; and, lastly, from an observance that, under impetuosity, or stimulated by any excitement, the tail was elevated. Animation, which is but another term for beauty and grace, became inseparably connected in the mind with the rising of the tail, and artificial means were used to make such elevation constant in ordinary exertion. In a natural state, the depressing muscles of the tail are stronger than the erecting; and it is to overturn this, and to give the balance of power to the erectors, that the operation of nicking is practised. The introduction of blood horses into general use, has greatly modified the mode of nicking, and instead of three sections to form a perfect *nag tail*, the drooping, pendent, elegant curve of the blood horse requires but one. As in castration, so also with nicking, a seasonable time should be chosen for it. In cold weather, it may become checked in its granulating process; and in very hot weather, locked jaw will be more likely to supervene.

The modes of securing the horse for the operation are various. Some few do it in the break or trevis; others place him against a strong bail, across a stall, or a leaping bar; which modes are practised by grooms and horse dealers, who

are often very expert at nicking, and who seldom, if ever, cast a horse for the purpose. Professional practitioners, I believe, most of them, used to throw the horse for this operation: for many years (says Blaine) I never operated without so doing; but I became averse to it from the difficulty of making the sections of equal depth, and likewise from the dangers of casting; but more than all, from every day seeing horse dealers performing it with the greatest ease and security standing.

It should, however, be remembered, that unless the practitioner be very expert at using the side lines, and have all the necessary conveniences, it will be safer for him to operate by casting: for want of these precautions, I remember, a few years ago, a horse dealer being killed on the spot while nicking a horse one Sunday morning in London.

Mode of operation. The horse being properly secured (if by the side line, two had better be used), and a twitch being ready for both lip and ear, endeavour to gently place first one, and then the other, hind leg, as far under the belly as the horse can bear with comfort, but not farther, or it will increase his disposition to resistance. If it be suspected that he will prove very obstreperous, or any timidity exist in the mind of the operator, as a further security, include both hind legs in another rope, or in a wide web, a little above the hocks. This may either run in a noose, or, which is better, let each loose end be attached to a manger ring, or, if operated out of doors, fasten them around the neck or across the breast. The tail having the hairs of the dock first bound together with wax end, &c. as the future means of attachment to the pullies, and also, if very full of hair, having it plaited back and secured, prepare to use a short stout scalpel; if double-edged, it is more convenient, and will save trouble in turning. The mode of making the sections must be left to the discretion of the operator, but the junior practitioner will find himself materially assisted by an accurate acquaintance with the anatomy of the tail. He will then see that the tail is neither conical nor perfectly cylindrical, but somewhat quadrilateral: its upper angles being formed of the fleshy bellies of the coccygeal elevators, and its lower of the depressors, leaving the under surface of the tail covered with ligament and skin only. It is of the utmost consequence to the junior operator that he bears this in mind, and

that he does not penetrate farther than the skin at this part, or he may divide the ligaments, and even penetrate the joint between one coccygeal bone and another, when anchylosis and a stiff tail would ensue. This latter accident may, however, be readily avoided by making the sections in the centre of a tail bone, which may be distinguished by the prominences of its articular surfaces; between which no such accident can happen. It is sometimes directed, and practised also, to make a section first through the integuments only, beginning at the roots of the hair on one side, and carrying it across the bellies of the depressor muscles; then doing the same on the other side; and, lastly, making these sections meet by a light and careful division of the integuments only, on the median line of the tail. Such is a very cautious and proper mode for the tyro, and is consistent with the best principles of the art; but it somewhat delays time, and the expert practitioner will probably find it more ready to carry his scalpel at once through the depressors, by a steady sweep, embracing all the parts to the median line, casing off the depth of section as he approaches it. By turning his hand, the same may be done on the other side, by which two strokes, judiciously performed, the operation, in expert hands, is at once complete. This first section should not be nearer in the smallest horse than two inches and a half, and in a full sized three inches, or three and a half, as the centre of the coccygeal bones may indicate. If another section be wanted, make it at two inches and a half or three inches from the first and the third, if it be necessary, somewhat less distant than the others; but in blood horses, one or at most two sections, according to the fullness of croup and height of the sacral line, is all that will be at the present day required. In mares of whatever breed, one section less than for the horse is advisable. The most expert operator will, however, find it prudent, when the sections are made, to examine them carefully that they are all of equal depth, and have divided the depressor muscles completely. Should any difference appear in these respects, and should such unequal division be allowed to remain, the operation would be incomplete, and the horse would probably carry his tail awry. Add to which, any portion of the muscle being left undivided, would tend to prevent the others from retracting, and might also serve to promote a

re-union of them. Having proceeded thus far, the hæmorrhage which ensues need not be considered as of consequence, nor will it shew itself until the tail be wholly relaxed; while it is elevated therefore, proceed to remove the tendinous ends, which will bulge out, not being retracted with the divided ends of their accompanying muscles. If one section only be made, they will be less prominent than where there are more; but enough will always protrude to enable them to be laid hold of by a tenaculum or forceps, and then cut off by a pair of strong and sharp scissors. The removal of these will not only separate the attachments of the muscles farther from each other, which, if re-united, would of course frustrate the operation, but their removal greatly facilitates the healing of the wounds.

The sections being thus complete, proceed to restrain the hæmorrhage, which is done in various ways. By some, by means of strips of cotton, tow, hemp, &c. which, twisted and inserted into each nick, are separately tied on the back of the tail. My own practice of late was to tie a piece of lint on a pledget of tow, and introduce into each section, sufficient to fill it up, over which I placed linen strips long enough to tie, on the back of the tail, which were then tied sufficiently tight to restrain the hæmorrhage. Here also it behoves the practitioner to consider the principles of his operations. He purposely strangulates the tail to prevent a dangerous waste of blood, but the very action is an incipient death to the part, and therefore should be most carefully guarded against that it does not proceed too far. If the bleeding be considerable, and require the bandages to be made very tight, I usually loosen them a little in two hours, watching the wounds; but when these ligatures are not necessarily so tight, they may be allowed to remain all night, but should be snipped in two at the back of the tail in the morning, which will not disturb the tail: indeed, whatever the degree of stricture or tightness used in the application of the ligatures, as soon as symptoms of strangulation have commenced, less risk will be run by a too early than by a too late division. When the practitioner is on the spot, an examination of the tail may be made in the evening previous; and in case any reaction has commenced, and the tail is very hot, loosen or divide them at once on the evening of the day of the operation, when, if the re-action appear to be con-

siderable, which will be known by the tail becoming very hot, it will be prudent to divide them at once, and this more particularly if the operation has been performed early in the morning. Much difference of opinion has prevailed on the subject of dressings, and whether any medicament were proper beyond dry lint. If it were possible to promote the adhesive union, then a dry dressing would be the best; but when it is considered that an early and healthy suppuration is, in human surgery at least, thought to be some guard against tetanus, and as it will enable the dressings to be removed with less difficulty, so there can be no objection to any mild digestive being made use of, if it fall in with the view of the operator. Many of the best veterinarians, however, content themselves with simply watching the nicks, that they be kept clean and free from fungus or other unhealthy process, which, if they do not occur, they use no applications but the bandages.

It is evident that, were a nicked tail left to itself, the depressing muscles would reunite, and carry it nearly as before: a suspension of the tail afterwards is therefore necessary to keep the divided ends of the muscles apart until a cicatrix be formed, and such junction thereby prevented. Various means have been used for this purpose. Formerly the tail was fastened on the back, to the danger and torment of the animal. It is now suspended by means of pullies, the best of which are double. When one is used, one wheel is passed through a line stretched across the end of the stall, rather behind the horse, and through the other wheel the line to which the weight is appended. A more improved mode is used by means of two of these pullies, one of which is placed directly behind the horse, at some distance from him, through which, after passing through the pulley on the cross line, it is also passed. By these means, whatever be the motions of the horse, the tail is distended at a right line with the body. The weight used for this purpose should be such that, for the first day or two, it will hardly keep the tail straight, or more than straight; for two or three more, elevate it to a little above the horizontal line, advancing it every two or three days to the required height, but which should never be carried perpendicularly erect. The elevation ought, however, principally to depend on the height to which we wish the tail to be carried in future. The carriage of the

tail should therefore be examined every two or three days, bearing in mind that, after it has altogether done with the pulleys, it frequently, indeed commonly, drops a little.

Among farriers and horse dealers, some difference of opinion has existed, relative to the propriety of exercising a horse during the use of the pulley, and also as to how long the pulley should be used ; but these matters can never puzzle the veterinarian, being easily solved by a knowledge of the general principles of the animal economy, which alone ought to guide him. The pulley is only an extension of the tail, to keep the ends of the muscles from uniting again ; but the simple extension does nothing of itself, as is foolishly supposed, towards the making the horse carry it in future. As soon, therefore, as the wounds are closed, or nearly so, then all the benefit from the pulley is finished ; but till then, of course, the muscular ends may unite, and frustrate the operation. Sometimes incrustation of the wounds will take place in ten days or a fortnight, and sometimes it will take a longer time. With regard also to the propriety of exercising the horse, there ought to be but one opinion. As the hair is, or ought to be, platted and carefully secured, so no inconvenience can arise, but every benefit may be gained, from letting him from the pulleys, and exercising him gently to remove swelling, &c. &c. The hair being put on the stretch by the force used, so a great part of it usually comes off, and this will happen in spite of every precaution ; but the longer it is kept in one immediate position, so much the more certain it is for much to fall off. At the end of five or six days, therefore, it may be untied or unplatted, combed out, and then tied afresh, being first greased at its roots ; and the same may be repeated every three or four days afterwards, which is the best means I have found of preventing it from falling totally off.

Having thus carried the operation through its ordinary course, it remains to say somewhat of its irregularities. Occa-

sionally inflammation follows the operation, either from suspending too much weight to the pulley, or forcing it backwards ; or otherwise from too long continuance of the ligatures, or too great tightness. This may proceed to mortification, or it may leave the tail with an unhealthy ulceration producing sinuses. When the former happens, the horse shews evident uneasiness the second or third day, the tail swells, is very tender towards the rump, and the heat is excessive. If the dressings be removed, the wounds appear highly inflamed and tumefied ; and unless this inflammatory state be arrested by the most active means, the wounds will become gangrenous, the stump will feel cold and mortification will proceed towards the body, and either destroy the horse ; or it is sometimes arrested at the base of the tail, and at length suppurates and drops off. In such cases the treatment must be prompt, and exactly that already detailed for active and important inflammations. As part of such treatment, remove it from the pulleys, or only very slightly suspend it ; wetting the tail frequently with cold water ; keeping it continually so, will be found even more useful. It will also be a proper plan to apply cold water during the common process, whenever the tail is at all hotter than is wished. Another evil to which these cases are exposed is tetanus or locked jaw, and which is brought on by causes unapparent to us : in some instances, however, heat in the temperature of the air seems to operate on it. It makes its appearance in many cases about the fourth or fifth day, and occasionally later. As a precursor to it, the wounds occasionally assume an unhealthy aspect, and suppuration ceases. In other instances no such alteration appears ; but in every instance, besides the general treatment of tetanic cases, the tail should be most actively stimulated, or otherwise really amputated, which perhaps would be the most proper.

NIDE. This term is applied to the offspring or young of the pheasant, before they separate.

NIDIFICATION OF BIRDS is one of those wonderful contrivances of nature that would compel us to believe that we and every other part of the creation are ever under the protection of a superintending Being, whose goodness knows no bounds, and who is alike provident for the preservation and comfort of the inferior, as well as the highest, order of his creatures. The art in the construction of

the nests of birds would baffle all the boasted talents of man to imitate :—

—————Mark it well; within, without :
 No tool had they that wrought, no knife to cut,
 No nail to fix, no bodkin to insert,
 No glue to join; their little beaks were all;
 And yet how neatly finished. What nice hand,
 With every implement and means of art,
 And twenty years' apprenticeship to boot,
 Could make me such another? Fondly then
 We boast of excellence, whose noblest skill
 Instructive genius foils.

Speaking of the conduct of birds to their young, Derham observes "How well they caress them with their affectionate notes; put food in their mouths; teach them to eat and gather meat for themselves; and, in a word, perform the part of so many nurses, deputed by the sovereign Lord and preserver of the world to help such shiftless creatures!" Neither ought it to be forgotten how much the instinct costs the animal which feels it:—"How much for example (says Dr. Paley) a bird gives up by sitting upon her nest; how repugnant it is to her organization, her habits, and her pleasures? An animal formed for liberty submits to confinement in the very season when every thing invites her abroad. What is more, an animal delighting in and made for motion, all whose motions are so easy and so free, hardly a moment at other times at rest, is for many hours and days together fixed to her nest as close as if her limbs were tied down by pins and wires. For my part (continues Dr. Paley) I never see a bird in that situation, but I recognise an invisible hand, detaining the contented prisoner from her fields and groves, for a purpose, as the event proves, the most worthy of the sacrifice, the most important, the most beneficial."

But the loss of liberty is not the whole of what the procreant bird suffers. Harvey tells us, that he has often found the female wasted to skin and bone by sitting upon her eggs.

Dr. Paley observes, that the *pairing* of birds, and the *non-pairing* of beasts, forms a distinction between the two classes, which shews that the conjugal instinct is modified with a reference to utility, founded in the condition of the offspring. In quadrupeds, the young animal draws its nutriment from the body of the dam. The male parent neither does nor can contribute any part to its sustentation. In the feathered race, the young bird is supplied by an importation of food, to procure and bring home which, in a sufficient quantity for the demand of a numerous brood, requires the industry of both parents. In this difference we see a reason for the vagrant instinct of the quadruped, and for the faithful love of the feathered mate.

NIGHT-MARE. A malady incident to horses as well as human beings, and proceeding from the like causes. This complaint causes the horse to sweat more in the night than in the day, and thereby

deprives him of his rest. You may discover it by observing him in the morning, whether he sweats on the flanks, neck, short ribs, which are strong indications of it. For the cure, the tribe of remedies

termed *nervous* are probably required, particularly the fetid gums and the bark, preceded by a mercurial purge.

Mr. John Lawrence says, "There can be no doubt that horses are frequently troubled with the *asthma nocturnum, incubus*, or *night-mare*: the symptoms of which are those profuse sweats, and twisting and disheveling of the mane, discovered at their uprising in the morning; which the country fellows of old attribute to the jockeyship and hard post-work of Oberon and his queen. The cause is a dense and sizzly blood, and intestinal accumulation. It is one of the salutary warnings of beneficent nature, which is not always neglected with impunity." Venesection, purgatives, exercise, and grass, are the remedies he prescribes.

NIPPERS. Four teeth in the fore part of a horse's mouth, two in the upper and two in the lower jaw. They appear between the second and third year. See AGE OF HORSE.

NOSEBAND is that part of a military bridle, headstall, martingal, or hunting rein-halter, which, passing below the under jaw, and round the nose above the nostrils, assists in keeping the other parts of either in their proper positions.

NOSTRILS. The nostrils of a horse are generally supposed to be a tolerable criterion of his wind, as well as his blood. A horse having a wide and well-extended nostril, may be supposed to possess a free

and easy expansion of the lungs: this cannot be more perfectly comprehended, than by adverting occasionally to the shape of horses which race, and are thorough bred; where the form and expansion of the nostrils will be found more than one third larger than such horses as are of common lineage, and inferior description, and arises perhaps from their swift exercise and swift work.

NOVEMBER. This may be called the sportsman's meridian, as the diversions of the field, generally speaking, may all be pursued. It is true, grouse will have become very wild, and partridges, unless where they are abundant, and little disturbed, will not easily allow the approach of the shooter; but cover shooting may be enjoyed in perfection, and this month is, in fact, the very zenith of pheasant and woodcock shooting.

Coursing, and the pursuit of the hare with hounds, may now be followed without interruption.

The regular season for fox hunting commences generally at the beginning of this month; in some places rather earlier.

Wild-fowl make their appearance in the month of November; and are seen earlier or later, and indeed numerous or otherwise, according to the severity of the season. The early and numerous appearance of wild-fowl may be regarded as an indication of a severe winter.

O

OATS. A well known grain, which constitutes a material part of the diet of horses.

Gibson reckons them to be of a middle nature between wheat and barley. They agree well, and are generally so palatable to horses, that he never knew even a foreign horse, that had been used to barley and other kinds of grain, refuse to eat them. Yet many of our horses will not relish barley, unless it be scalded, or they are first suffered to be very hungry, and even then they do not care to eat it. "Oats (says he) are cleansing and opening, and our horses seldom receive any damage from them, unless given with too liberal a hand, and then they are looked upon to be heating. Besides, when horses have too many oats given them, they are apt to eat little or no hay. But this seldom happens, except where hay is scarce, or not good of its kind, and oats are plen-

tiful; but horses that eat little hay and many oats, though their flesh is generally firm, yet they seldom carry any belly, and, if they have not a good deal of exercise, are apt to fall into fevers.

The oats are generally good all over England, but are best in the north parts; for they thrive most in cold moorish grounds, and in some countries are their chief product. Those that have a thin shell and not large and husky, feel heavy in hand, and rattle when poured into the measure, are the best. The ship oats that come to Bear-Key are chiefly from the northern counties, but are sometimes musty and unwholesome, and lose their whiteness by the water carriage; but when they are put into dry granaries or dry lofts, and spread out on the floors, and often turned and sifted, they frequently recover their sweetness, and may be given with safety; yet I should always

prefer the freshest and newest oats, especially for fine horses, though they may be worse in kind; and where they abound in husk there needs no more than to increase the allowance. Some prefer the black oats to the white, but I believe the difference is but small, only that in some places the black are more firm and hard than the white, and have a thinner shell, and in those places they generally sow a superior number of black oats among the white, though the white that grow up with them are not much, if at all, inferior to the other, which shews the difference lies chiefly in the goodness of the seed and the fitness of the soil."

OBERON. A bay horse, foaled in 1782, bred by and the property of his Grace the Duke of Grafton.

Oberon was got by Florizel; his dam, by Snap; grand-dam, Blank Mixbury.

At Burford, August 11, 1785, Oberon won 50l. for three years old, colts 8st. 4lb. fillies 8st. 2lb. beating, at three two-mile heats, Lord Abingdon's Monarchy, and Mr. Lade's brown filly, which was distanced the first heat. At Swaffham, September 26, he won 50l. for three years old colts and fillies, 8st. each, one mile, beating Lord Abingdon's Monarchy, Mr. Hale's Icarus, Mr. Hull's Drover, Prince of Wales's Figaro, Mr. Vernon's Bedford, and two others. At Newmarket second October meeting, he won 50l. for three years old, colts 8st. fillies 7st. 12lb. A. F. beating Mr. Lade's Pilot, Sir C. Bunbury's Blackcock, Lord Egremont's brown colt, by Highflyer, out of Angelica, Lord Vere's Fox, Lord Grosvenor's Grantham, and Mr. Hull's Little Anthony:—3 to 1 against Oberon, 3 to 1 against Lord Egremont's colt, 3 to 1 against Little Anthony, and 4 to 1 against Grantham.

At Newmarket first spring meeting, 1786, Oberon won 50l. three-year olds, 7st. 4lb.; four, 8st. 7lb.; and five, 9st. D. C. beating Sir F. Evelyn's Egham, 5 years old; Mr. Vernon's Trusty, 3 years old; Prince of Wales's Figaro, 3 years old; Mr. Stacie's Bacchus, 4 years old; Mr. Clarke's Trinidad, 5 years old; and Duke of Queensbury's Cutter, 4 years old:—7 to 4 against Oberon, and 3 to 1 against Bacchus. In the second spring meeting, he won the Jockey Club purse, for four-year olds, 8st. R. C. beating Sir F. Standish's Lepicq, Lord Grosvenor's Vulcan, Mr. Maynard's Smith, Mr. Wentworth's Cowslip, and Mr. Bullock's Lunardi:—5 to 2 against Oberon, and 4 to 1 against Lepicq. In the July meeting,

at 8st. he won 60gs. for all ages, D. I. beating Mr. Dawson's Roscius, 5 years old, 8st. 8lb.; Mr. O'Kelly's Soldier, aged, 9st.; Mr. Lade's brown filly, by Highflyer, 3 years old, 6st. 9lb.; Mr. Hull's Alphonzo, aged, 9st.; Sir C. Bunbury's Volatile, aged, 9st. and Lord Grosvenor's Roundelay, 4 years old, 8st. —6 to 5 against Soldier, 5 to 2 against Oberon, and even betting either Soldier or Volatile won. In the first October meeting, at 7st. 7lb. he won the 140gs. subscription, for all ages, B. C. (seven subscribers,) beating Lord Derby's Peru, aged, 9st. and Lord Foley's Blandish, 4 years old, 7st. 7lb.—4 to 1 on Oberon.

At Newmarket second October meeting, 1787, Oberon, 7st. 12lb. beat Lord Clermont's Collector, 8st. 3lb. last three miles of B. C. 50gs:—6 to 4 on Collector. He afterwards proved unsuccessful in England, and was sold to Noble Mannis, Esq. who raced him in Ireland.

At Limerick, July 9, 1788, Oberon won 50l. for six-year olds and aged, 8st. 12lb. each, four mile heats, beating Mr. A. Daly's Friar, aged; Mr. M'Craith's Tulip; Mr. Hamilton's Trifle, 6 years old; Mr. Hewson's Munster Lass, aged; and Mr. Strange's Tormentor: Trifle the favourite; after the first heat, 2 to 1 on Oberon. Next day, he won 50l. for all ages, beating Mr. Kirwan's Hippomenes, 4 years old, and Mr. Dennis's Kildare, 5 years old. At Kilkenny, July 31, he won 60gs. for six-year olds, 9st. each, two-mile heats, beating Mr. Dennis's Ranunculus, and Mr. Hamilton's Tommy Orde. He afterwards proved unsuccessful.

OCTOBER. On the first of this month the pursuit of the pheasant becomes a legal object with the sportsman; grouse have become wild, but good diversion may still be obtained with the partridge. Some few woodcocks will most likely make their appearance towards the end of this month.

Coursing is in full activity. The hare is pursued also by the harriers.

Fox-hounds are busily employed cub hunting; and, in some parts of the kingdom, the regular season commences towards the end of the month.

OFF-SIDE. The right-side of a horse, if you stand parallel with him, and look the same way, is the off-side; as the left is the near-side. When speaking of any part of a horse, it is not usual, in sporting terms, to use the words right or left; but to say the near-shoulder; the off-eye; the near-leg before, or the off-leg behind.



OIL, AND THE BEST MODE OF CLARIFYING IT. All vegetable oils possess a harder quality, and are more apt to become cloggy, than animal oils ; and are, consequently, not so well calculated for the fowling-piece, the locks in particular. Neat's-foot oil, and the oil from sheep's feet, generally contain a considerable quantity of feculent matter, which may be separated by the following simple process :—drop a few small pieces of lead into the bottle, and hang it in the sun for a week or ten days, when the residuum will sink to the bottom, leaving the oil remarkably pure, and admirably adapted for the purpose just mentioned. If it happens in the winter, when the sun is not sufficiently powerful, hang the bottle near the fire, to keep the oil perfectly fluid, otherwise the residuum cannot sink. —Goose grease, or the fat of fowls in general, will answer the purpose fully as well, if clarified in the manner above described. Oil thus prepared is far superior to any other for the lock, &c. of the fowling-piece ; and indeed for all similar mechanism.

OLD BACHELORS. There are few experienced shooters, I apprehend, who have not frequently met with small coveys of partridges, which consisted entirely of male birds. These small coveys are evidently made up of individuals who have not been able to find mates, and which, at the latter end of the summer, congregate, and appear to live in the greatest harmony—a striking instance of the social disposition of the partridge. They are called old bachelors.

ONION is an article which would not have found its way here, but in consequence of its great utility upon a certain emergency, which entitles its property to be more universally known. No trifling occurrence can possibly occasion more temporary mortification to a sportsman than to see his horse labouring under the

strangury (or suppression of urine) after the long stage of a journey, or the severity of a chase. In such cases, the first farrier is generally called in, who, proceeding upon the *kill or cure* system of former times, prepares a portion of the most powerful urinary stimulants, plentifully besprinkled with spirits of turpentine, oil of juniper, and other equally violent and injudicious ingredients, frequently laying the foundation of inflammation ; when an onion being peeled, and a small clove or two of the inside properly insinuated within the sheath, may nineteen times out of twenty be expected to produce the desired effect, without the interposition of any medicine whatever.

OPENING THE HEELS. The ceremony of opening a horse's heels is sometimes necessary, when they are become contracted by so constantly standing upon the dry litter, and hot dung of stables in the metropolis ; a circumstance which occurs much less in the country, where the defect is but little known. Although there can be no doubt of a hoof's contracting in a great degree by the means already mentioned, it must be more so, where the hoofs are not moistened or stopped for weeks, or probably months, together. It is, however, a matter of doubt, whether the back-handed stroke of the smith's rasp in shoeing, is not a more constant or frequent cause of the narrowness of the heels than any other. Let it arise from whatever cause, the remedy with them is always ready ; “open the heels ;” or, in other words, cut away with the drawing-knife, till little or nothing is left : when the basis of bearing is taken away, the heel is let down to the ground, the tendons are put upon the stretch, the horse being divested of his natural support, hobbles like a cripple, and there is no remedy, but to wait with patience for a perfect regeneration of parts so wantonly destroyed.

ORTOLAN. The ortolan or wheat-ear, inasmuch as in some parts it is sought after by the sportsman, merits particular notice in this place. This species is met with in all parts of Europe, even so far as Greenland ; and Latham says he has seen specimens sent to England from the East Indies. The ortolan visits England annually in the middle of March, and leaves us in September ; and about that time they are seen in great numbers by the sea shore, where probably they subsist some little time before they take their departure.

The ortolan and the wheat-ear we regard as one and the same bird, though we are aware that a distinction has been made by some writers, which we look upon as incorrect. These birds appear in

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great numbers in some parts of England, and are much esteemed. They feed on small earth-worms, and therefore resort to ploughed fields. About Eastbourn, in Sussex, they are taken in snares made of horse hair, placed by the shepherds beneath the hollows of a long turf cut out for the purpose. The length of the bird is about five inches and a half; the bill black and more than half an inch long; the top of the head, hind part of the neck and back, are of a blueish grey; from the base of the bill a black streak extends over the eyes, cheeks, and ears, where it widens into a large patch, and above this there is a line of white. The quills are black with tawny edges; the rump, upper tail coverts, and base half of the tail, white, the rest black. The under parts of the body yellowish white, changing to pure white at the vent. Legs and feet black. In the female, the white above the eye is somewhat obscure, and all the black parts of the plumage incline more to brown, nor are the tail feathers marked so deeply with white. Such is the description given of the wheat-ear.

These birds frequent heaths; and, except in particular spots, are only seen in a few scattered pairs. The nest, which is placed in new ploughed lands under stones, or sometimes in old rabbit burrows, is constructed with much care, and is composed of dry grass or moss mixed with wool, and lined with feathers: it is defended by a sort of covert fixed to the stone or clod under which it is formed, and is always made on the ground. The eggs, from five to eight in number, are of a light blue, with a circle at the large end of a deep blue. The young are hatched the end of May or early in June.

Having described what in England is called the wheat-ear, we shall introduce the description of the ortolan of the Continent, which, notwithstanding the seeming difference, we are, nevertheless, disposed to consider as the same bird.

The ortolan, we are told, is something less than the yellow-hammer: bill yellowish, the head and neck are cinereous olive; throat and round the eyes yellowish; the breast and belly are red, and the upper part of the body brown, varied with black; tail deep brown with rufous edges, excepting the outer feather, which is edged with white, and the inner part of the neck to it, tipped with white; though in some birds, the outer feather is marked obliquely with white near the end, with a brown tip: legs yellowish. The female differs in having the head and neck inclining to ash colour, marked with small blackish lines down the shaft of each feather; otherwise like the male.

There is certainly some difference in the description of the wheat-ear and the ortolan, which, however, might arise from the different state of the plumage, as we conceive (as we have already observed) that they are one and the same; that in fact the wheat-ear of this country is the ortolan of the continent; and is in all probability the celebrated *Miliaria* of Varro. Long before his time it was known at Rome, where it was kept in the aviaries along with the quails and thrushes.

The ortolans, when fattened, are prepared for the table in various ways. Sometimes they are roasted in a natural or artificial egg-

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shell; a mode of cookery borrowed from the ancients, who not only dressed small birds, but presented them at their entertainments in this manner; so that upon opening the egg, they were seen floating amidst a high-seasoned sauce. The delicacy of the flesh rather than the powers of song, recommended the ortolan to the luxurious Romans, and laid the foundation of their fame in the ancient world: this species will, however, sing prettily both by day and night, and has been kept for that purpose.

Ortolans are found in several parts of Europe; are common in France and Italy, and some parts of Germany and Sweden; migrating from one to the other in spring and autumn; in their passage they are caught in numbers, in order to fatten for the lovers of good eating. This process is easily managed by inclosing the birds in a dark room, setting before them plenty of oats and millet, with which they soon grow so fat, that they would die from that cause alone, did not their feeders kill them for the emolument of their sale. Their flesh is thought to be one of the most exquisite morsels yet known, being, as it were, a lump of rich fat, and the birds arrived at this state will often weigh three ounces. It is impossible, we are told, to eat a large quantity of this food, provoking as it may be, as it palls on the appetite by its richness; and nature, as in other instances, so here, has placed disgust before excess, as a guard against the intemperance of the glutton.

Ortolans are also very common in the south of Russia, and in Siberia as far as the river Ob, but never go much to the north. The arrival of the ortolans in France is nearly at the same time with that of the swallow, and they take their departure with the quail. They are lean on their first appearance, which is during their season of love. In some parts they make their nest in a low hedge; in others on the ground. It is carelessly constructed, similar to that of the lark.

In India, we are told, that towards the conclusion of the cold season, that is, about the beginning of March, the ortolans make their appearance, and assemble in such flights as can be compared to nothing better than immense swarms of bees. They are most numerous in April and May, especially if the squalls of wind and rain, called north-westerns, be not frequent; those violent gusts disperse them. In clear hot weather, perhaps a score of large flights may be seen in various directions: they are not very difficult to approach; indeed, whole flights will sometimes settle close to the persons who happen to be on a favourite or inviting spot. Though many may be killed by firing at random, while the flock is on the ground, it is best to kill them on the wing: Major Ducarel once killed more than thirteen dozen by one discharge of dust shot at a flight that passed close to him.

OTHELLO. See **BLACK-AND-ALL-BLACK**, page 62.

OTTER. This creature seems to form that link in the chain of gradation which unites terrestrial and aquatic animals, and is uncommonly destructive among fish; it presents the form of the quadruped, but resembles aquatic animals in being able, not only to swim with great speed, but also in being able to remain for a con-

siderable length of time under water. The otter, however, properly speaking, is not amphibious ; he is not formed for continuing in the water, since, like other terrestrial creatures, he requires the aid of respiration ; also, if, in pursuit of prey, he gets entangled in a net, and has not time to cut with his teeth a sufficient number of meshes to effect his escape, he is drowned. The usual length of the otter, from the tip of the nose to the base of the tail, is twenty-three inches ; of the tail itself (which is broad at its insertion and tapers to a point) sixteen ; but one drowned, by being entangled in a fisherman's net near Bath, in 1805, measured, if we are to believe the account (which appears to us more than suspicious) upwards of *six feet* ! The weight of the male is from eighteen to twenty-six pounds ; that of the female from thirteen to twenty-two pounds :—one, in October, 1794, was snared in the Lea river, between Ware and Hertford, which weighed upwards of forty pounds. The head and nose are broad and flat, the eyes are brilliant, though small, are nearer the nose than is usual in quadrupeds, and placed in such a manner as to discern every object that is *above* ; which gives the otter a singular aspect, somewhat resembling the eel ; but this property of seeing what is above gives it a particular advantage when lurking at the bottom for its prey, as the fish cannot discern any object *under* them, and the otter, seizing them from beneath by the belly, readily takes any number with little exertion : the ears are extremely short and their orifice narrow ; the opening of the mouth is small, the lips are capable of being brought very close together, somewhat resembling the mouth of a fish, are very muscular, and designed to close the mouth firmly, while in the action of diving, and the nose and corners of the mouth are furnished with very long whiskers. This animal has twenty-six teeth, six cutting and two canine above and below, of the former the middlemost are the least ; it has besides five grinders on each side in both jaws : the legs are very short, but remarkably broad and muscular, the joints articulated so loosely, that the otter can turn them quite back, bring them in a line with its body, and use them as fins ; each foot has five toes, connected by strong webs, like those of water-fowl : thus nature in every particular has attended to the way of life allotted to an animal, whose food is fish, and whose haunts must necessarily be about the waters. The otter has no heel, but a round ball under the sole of the foot, by which its foot-mark is easily distinguished, and this is termed the *scal*. The general shape of the otter is somewhat similar to that of an overgrown weasel, being long and slender ; its colour is entirely a deep brown, except two small spots of white on each side of the nose and one under the chin ; the skin is valuable, if the animal be killed in the winter, and makes gloves more durable, and which at the same time will retain their pliancy and softness, after being repeatedly wetted, beyond any other leather.

The otter shews great sagacity in forming its abode, burrowing under ground on the banks of some river or lake ; and generally making the entrance of its hole under water, working upwards towards the surface of the earth, and forming several holts or lodges,

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that in case of high floods it may have a retreat (for no animal is more careful to repose in a dry place) and there making a minute orifice for the admission of air; and even this aperture, for greater concealment, is frequently made in the middle of some thick bush.— Sometimes its retreat is made in the hollow trunk, or upon the top, of a willow pollard that inclines over the water. The otter is very cleanly, depositing its excrements or *spraints* in particular spots. Upon the least alarm it flies to the water, where, by its rapidity in swimming and diving, it frequently escapes from its pursuers.

In rivers the otter is always observed to swim against the stream to meet its prey; and in very hard weather, when its natural food fails, the otter will kill lambs, sucking pigs, and poultry; and one was caught in a warren where it had come (it is supposed) to prey on rabbits. The otter will also devour vegetables of different kinds, and gnaw the bark and twigs of young trees.

In the year 1793, as two gentlemen were shooting in Devonshire, the pointer stood at some brakes, from which a large otter issued; the dog seized it; but, being severely bitten, quitted his hold: after driving the otter about for some time in a turnip field, his destruction was effected by blows upon the head; and this otter was at a distance of at least five miles from any river or pond that could supply him with fish, and it is to be presumed he meant to prey upon some land animal, as he had prowled so far from the place where his natural food could be procured.

This occasional rambling of the otter from its favourite element seems to be one of its habits. At Hudson's bay they are frequently seen in the very depth of winter, both in woods and on open plains, as well as on the ice of large lakes, at a considerable distance from any known open water. If pursued when among the woods in winter (where the snow is always light and deep) they immediately dive into and make considerable way under the snow, but are easily traced by the motion of it above them, and soon overtaken. Otters are very fond of play, and one of their favourite pastimes is, to get on a high ridge of snow, bend their fore feet backward, and slide down the side of it sometimes to the distance of twenty yards. They have from three to five young at a time. In summer, when the hair is very short, they are almost black, but as the cold weather advances, they become lighter coloured.

The flesh of this animal is extremely rank and fishy; but we are told the Romish church allows its use on *maigre* days. In the kitchen of the Carthusian Convent, near Dijon, Mr. Pennant says that he saw an otter preparing for the dinner of that rigid order, who, by their rules, are prohibited, during their whole lives the eating of flesh.

As the otter frequents ponds near gentlemen's houses, litters of young have been found in cellars, soughs, and drains. The cubs have been known to have been suckled and brought up by a bitch: near South Molten, in Devonshire, this happened, and the young otter followed his master with the dogs, but seemed to have no inclination for the water.

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There are many instances of the otter being tamed when taken young, and becoming so domesticated as to follow their master, answer to a name, and employ their talent in fishing for him.

William Collis, of Kemmerston, near Wooler, in Northumberland, had a tame otter which always attended him, would fish in the river, and when satiated return to him. In Collis's absence, his son took the otter out to fish ; but it refused to come to the accustomed call and was lost : the father, after several day's search, being near the place where it was lost, and calling by its name, it came creeping to his feet, and shewed many marks of firm attachment.

James Campbell, near Inverness, had likewise a tame otter, which was frequently employed in fishing, and would take eight or ten salmon in a day. If not prevented, it always attempted to break the salmon behind the fin next the tail. When one was taken from it, it dived for more, and when tired and satisfied with eating the share of the prize allotted it, the animal curled itself round and fell asleep, in which state it was generally carried home. This otter fished, as well in the sea, as in a river, and took great numbers of codlings and other fish.

Fishing with the tame otter is mentioned by Vaniare in his *Prædium Rusticum*, and the passage has been thus translated :—

Should chance, within their dark recess, betray
The tender young, bear quick the prize away.
Tam'd by thy care, the useful brood shall join
The watery chase, and add their toils to thine ;
From each close lurking hole shall force away,
And drive within thy nets the silver prey :
As the taught hound the timid stag subdues,
Or o'er the dewy plain the panting hare pursues.

Mr. Edwards, of Little Waltham Hall, Essex, had an otter which always attended him like a dog ; and every afternoon, when the old gentleman slept, the otter regularly stationed itself in his lap : it used to get fish from the ponds in the gardens and grounds near the house ; it had milk also given it, and was at last accidentally killed by a maid servant striking it on the nose, where, it is said, a trifling blow generally proves fatal.

Buffon mentions a tame otter that was kept in 1775 in an abbey at Autun. This was a female, and had been taken extremely young, and reared with milk until two months old, when it was fed with soup, fruits, pulse, meat, fish, &c. which latter, however, it would not eat unless perfectly fresh. It was as tame as a dog, and would come whenever called by its name, and would also play with a dog and cat with which it had been early acquainted, but manifested great animosity against others which approached it. This otter chiefly inhabited a room, and would lie by night on a bed, and during the day on a heap of straw prepared for it : the animal would occasionally plunge its head and fore feet into a vessel of water which always stood near it, and, after shaking itself, go out into the court yard for exercise, and then repose in the sunshine. It appeared to have lost the natural habits of its kind, since being carried one day

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to a pool of water, it seemed afraid and would not go into it, but only wetted its head and feet as in its chamber ; and when thrown in to the distance of some feet, it instantly made to the shore, as if in a sort of alarm, and followed readily to the abbey.

But the most curious instance of the otter's being tamed, is that where a person suffered it to follow him with his dogs, with which he used to hunt other otters; and it was remarkable, that so far were the dogs from molesting it, that they would not even hunt an otter whilst it remained with them; upon this account, although the otter was useful in fishing, and in driving trout and other fish towards the nets, the owner was obliged to dispose of it.

According to Goldsmith, the manner of rearing otters to become domestic is to procure them as young as possible, and to carefully feed them at first with small fish and water ; as they gain strength, milk is to be mixed with their food, the quantity of their fish provision lessened, and that of vegetables and bread increased, until at length they are fed wholly upon bread, which perfectly agrees with their constitution. The mode of training them to hunt for fish requires both patience and assiduity. They are first taught to fetch in the same manner as dogs are instructed ; but not possessing the same sagacity or docility, the operation of teaching them is rendered much more tedious and perplexing. It should be performed by accustoming them to take a truss, made of leather, and stuffed with wool in the shape of a fish, into their mouth, and to drop it when commanded ; to run after it when thrown forward, and to bring it to their master. From this, the process is to real fish, which are thrown dead into the water, and which they are taught to fetch to shore. In a short time living fish are made use of instead of dead ones, till at length the education of the animal becomes complete, and he readily obeys his master. Tedious as the process is, the labour is amply repaid, we are told, as an otter, thus taught, will catch fish not only for its own use, but to sustain a whole family.

The otter is found in all parts of Europe, north and north-east of Asia, even as far as Kamschatka, where the natives use the skins to face their garments, or to wrap round those more precious furs of the sables, which are better preserved in otter skins than in any other manner. The otter inhabits none of the Aleutian or Fox Islands, except the easternmost, which are thought to be near the new world. They are sometimes seen as low south as Carolina and Louisiana, but are there very scarce; and otters are not met with farther south. They abound in North America, particularly in Canada, where the most valuable furs of this kind are produced, and where they exceed the European otter in size. The Americans round Hudson's Bay, shoot or trap them for the sake of their skins, which are sent to Europe ; and they also eat their flesh.

The sea otter is found on the coast of Kamtschatka, and in the adjacent islands, as well as on the opposite coasts of America ; but it is confined within a very few degrees of latitude. Its whole length is about four feet, of which the tail occupies thirteen inches. The fur is extremely soft, and of a deep glossy black. The ears are

small and erect, and the whiskers long and white. The legs are short and thick, the hinder toes somewhat resembling those of a seal. The weight of the largest sea otters is from seventy to eighty pounds.

In their manners, these animals are very harmless; and towards their offspring they exhibit an uncommon degree of attachment. They will never desert their young; and will even starve themselves to death on being robbed of them, and strive to breathe their last on the spot where their young have been destroyed. The female produces only a single young one at a time; which she suckles almost a whole year, and till it takes to itself a mate. The sea otters pair and are very constant. They often carry their young between their teeth, and fondle them, frequently flinging them up and catching them again in their paws. Before these can swim, the old ones will take them in their fore feet, and swim about with them upon their backs.

The sea otters swim sometimes on their sides; at other times on their backs, or any upright position. They are very sportive, embrace each other, and seem to kiss.—When attacked, they make no resistance, but endeavour to save themselves by flight: if, however, they are closely pressed, and can perceive no means of escape, they scold and grin like an angry cat. On receiving a blow, they immediately lie on their side, draw up their hind legs together, cover their eyes with their fore paws, and thus seem to prepare themselves for death. But, if they are fortunate enough to escape their pursuer, they deride him as soon as they are safe in the sea, with various diverting tricks: at one time, keeping themselves on end in the water, and jumping over the waves, holding their fore paw over the eyes, as if to shade them from the sun while looking out for their enemy; then lying flat on their back, and stroking their belly; then throwing their young down into the water and fetching them up again. In their escape, they carry the sucklings in their mouth, and drive before them those that are full grown.

The skins of the sea otters are of great value, and have long formed a considerable article of export from Russia. They are sometimes taken with nets, but are more frequently destroyed with clubs and spears. The young animals are said to be delicate eating, and not easily to be distinguished from lambs. The flesh of the old ones is insipid and tough.

OTTER HUNTING. This amusement was formerly much in fashion in this country; and as it occurs at a season when the pursuit of the fox and the hare are necessarily abandoned, it offers a sort of apology for field sports when superior diversion is unattainable. As in the pursuit of the otter the hounds are frequently in the water, so the hunting of this animal cannot be undertaken till the severity of the winter and spring has passed away. About a century and a half ago, otter hunting was very common in all those parts of England, where these animals

are to be met with; but it declined so much that twenty years since otter hunting was as nearly extinct as possible: it has since resuscitated, as it were; it is now pursued in various parts of Great Britain; though it is never likely to become general or popular. It is amusing enough to some persons; but the sport is very insipid compared to the chase of the fox, or the pursuit of the hare.

Upon this subject, an old author remarks:—"these otters must be hunted by special dogs, such as are called otter hounds; and also with special instru-

ments, called otter spears*. When they find themselves wounded with a spear they then come to land, where they fight furiously with the dogs; and except they be first wounded they forsake not the water; for they are not ignorant how safe a refuge the water is unto them, and how unequal a combat they must maintain with men and dogs upon land." This is

not exactly the case; an otter will keep the water as long as he is able, certainly; but as he becomes fatigued by the pursuit, he will quit the water, though he has not been wounded, and endeavour to shelter himself in a sough or drain, or some such subterranean asylum. Somerville thus describes the pursuit of the otter:—

This subtle plunderer of the beaver kind,
Far off, perhaps, where ancient alders shade
The deep still pool, within some hollow trunk
Contrives his wicker couch; where he surveys
His long purlicu, lord of the stream, and all
The finny shoals his own.

On the soft sand,
See there his *seal* impressed! and on that bank
Behold the glitt'ring spoils! half eaten fish,
Scales, fins, and bones, the leavings of his feast.
Fresh, on that yielding flag bed, now once more
His *seal* I view! O'er yon dank rushy marsh
The sly *goose-footed* prowler bends his course,
And seeks the distant shallows. Huntsman, bring
Thy eager pack, and trail him to his *couch*.
Hark! the loud peal begins, how greedily
They snuff the fishy steam, that to each blade
Rank-scenting clings!
Now on firm land they range; then in the flood
They plunge tumultuous; or, through reedy pools,
Rustling, they work their way: no *holt* escapes
Their curious search. Yon hollow trunk,
That with its hoary head uncovered, salutes
The passing wave, must be the tyrant's fort:
Mark well! how these impatient climb,
While others at the foot incessant bay:
At length his *couch* he leaves, and dives along!
Th' ascending bubbles mark his gloomy way.

See! there he *vents*!
The pack plunge headlong, and protended spears
Menace destruction: Ah! there once more he *vents*!
See! that bold hound has seized him; down they sink,
Together lost; see there escap'd he flies
Half-drown'd, and clambers up the slippery bank
With ooze and blood distain'd. That spear has pierc'd
His neck; the crimson waves confess the wound.

Lo! on yon sedgy bank
He creeps disconsolate; his numerous foes
Surround him, hounds and men. Pierc'd through and through,
On pointed spears, they lift him high in air;

Bid the loud horns
Proclaim the spoiler's fate—he dies! he dies!

Those who follow otter hunting at present generally go out early in the morning, as soon as the season is sufficiently

advanced to enable the dogs to remain in the water without sustaining any injury. The principal reason for going out early

* Otter spears should be barbed; but so contrived that the barbs lie close to the staff or handle till the blow is struck, when they should expand, by means of springs, and thus secure the object.

in the morning is, that as the otter, during the night, frequently strays to some distance from the water side, so the hounds are likely to hit upon the scent under such circumstances, and thus follow him to his *couch*. The sportsmen go on each side of the river, beating the banks and sedges; and if there be an otter in the neighbourhood, his *seal* will most likely be observed on the mud or sand by the edge of the stream: each sportsman should be prepared with an otter spear. Dogs used to the diversion will carefully try, not merely the banks of the river, but will examine every stump or large stone which raises its head above the water, and upon which the *sprints* of the otter will be frequently deposited. The hounds will open in the same manner as harriers will give tongue to a hare, and on this signal, the track of the otter is examined if possible on the banks or water's edge, in order to ascertain which direction he has taken. The pursuit is continued and the otter is generally hunted up to his couch, which he will, however, quit on the approach of the hounds, and he hides himself from view by plunging into the stream; but as he makes way under the water, his track may be frequently observed by the bubbles which form immediately above his course: this serves as a direction to the sportsman. Though the otter will continue for a considerable length of time under water, yet he is forced to the surface to breathe, which, however, he manages with great sagacity; as when he approaches the top of the water for that purpose, he rises perpendicularly, as it were, and merely projects his nose above the surface, and dives again instantly. Thus the *venting* of the animal is scarcely perceptible, and will escape the observation of those unaccustomed to the diversion.

Although the otter is so admirably calculated for swimming and diving; yet he is much sooner fatigued than might be expected; and when he finds himself no longer able to maintain his superiority in the water, he makes directly for the shore. Should he be seized by a dog in the water, he never fails to sink immediately, taking his adversary along with him; the dog is, of course, under the necessity of quitting his hold, and he rises again the moment he can extricate himself from the jaws of his antagonist. The otter, on becoming fatigued, will make for the land, as already observed; and on such occasions he is not easily turned from his purpose. He, how-

ever, thus affords the sportsmen an opportunity of using their spears, and he generally meets his death from the hounds, or perhaps from both, unless he is fortunate enough to make his way into some friendly drain or sough, or into some similar situation, from which it is sometimes found impossible to dislodge him.

The spear is of little, if any service, till the otter approaches the shore, as it is not possible to use it effectively when he vents, though the place should be within the sportsman's reach.

Otters maintain a very fierce and obstinate conflict with the dogs; they bite even more keenly than the fox; they fight to the last gasp, and the male dies without complaining; though the pregnant females, it is asserted, will emit a very shrill squeal.

In 1796, near Bridgnorth, on the river Worse, four otters were killed: one stood three, another four, hours before the hounds, and was scarcely a minute out of sight.

In April, 1804, the otter hounds of Mr. Coleman, of Leominster, killed, in Monkland Mill pond, an otter of extraordinary size: it measured from the nose to the end of the tail, four feet ten inches, and weighed thirty-four pounds and a half.—This animal was supposed to be eight years old, and to have destroyed a ton of fish annually for the last five years.

Otters are easily captured when snow covers the ground accompanied by severe frost: they then collect together and are easily traced: upon the Fobbing marshes in Essex, when the *Fleets* had long been frozen, a party killed nine in one day; and in 1796, a gentleman in Northamptonshire, with the assistance of only a terrier, secured two very large ones out of three, which the dog discovered by the side of a brook.

About twenty-seven years ago, or about the year 1805, as the hounds of the late Mr. Bradshaw, of Halton Hall, near Lancaster, were pursuing an otter in the river Lune, the animal was observed making towards a drain situated near the edge of the water: some of the lower orders were enjoying the diversion, as is very generally the case; and on one of these (a plasterer) observing the manœuvre of the otter, he attempted to prevent the animal from entering the subterraneous retreat just mentioned; in which he succeeded, as well as in forcing the otter again into the water; but it was at some expense, as in the scuffle, the otter bit the end of his thumb

completely off just below the nail; strange as it may appear, the man was unconscious of his loss till he perceived the separated part lying on the sand before him.

It is asserted that otters may be taken in an unbaited trap, but that they reject every kind of bait: the trap must be placed near the otter's landing place, which may be found by examining the edges of the river or pond, either by his spraints, his *seal*, or the remains of fish (for in whatever place he devours his plunder, sufficient marks are uniformly left of his depredations): the trap must be set in, and covered with mud, to prevent his seeing it. The instant the trap strikes, the otter plunges with it into the water, when its weight preventing his rising to the surface, he is drowned. The trap will seldom be drawn more than twenty yards from the spot, and, with a grappling iron, may be soon recovered. If the place where he comes out of the water cannot be discovered, upon the ground, where the remains of the fish are left, a hole should be cut near the edge of the water, and a trap or two placed upon a level with the ground, and covered carefully with moss.

Although the otter rejects all baits in the trap, an instance occurred in August, 1799, in the river Buckland, near Dover, of his taking a line bait. An otter suddenly darted from his holt, and seized the bait of a gentleman trolling for pike, who thought the bait was taken by an overgrown fish, in consequence of the animal's violent struggles. After a long contest, in which the troller displayed much skill, to his great astonishment and that of others upon the spot, he drew the otter to the shore completely exhausted.

For the language or technical terms of this chase, the reader is referred to the article **TERMS** in **SPORTING**. For the kind of dog calculated for the pursuit of the otter, see the article **HOUND**.

OVER-DONE. A horse is said to be over-done, when both his frame and spirits are so exhausted with fatigue and excessive labour, that he sinks down in his stall almost immediately after reaching the stable; where he extends himself at every extremity, giving evident proof of the struggles nature has to encounter, by the bodily disquietude under which he continues distressed for many hours, and sometimes days, before he becomes perfectly recovered. When a horse is reduced to this state, by a too long continuance at slow or steady work, no doubt of recovery

need be entertained with a few days nursing; but if it has been occasioned by a continued and persevering speed with hounds, and a long journey home, danger may be justly apprehended: instances have occurred where internal inflammations have arisen, by which existence has soon been destroyed.

OVER-REACH. An over-reach is such injury (either cut or bruise) as is frequently sustained in the heel of a horse's fore-foot, by one of the shoes behind; and this happens during brisk action, in either trot or gallop, where the ground is unexpectedly deep and deceptive: or when a horse is thick in the shoulders, and slow in action before, the hind-quarters are thrown in faster than the fore-legs can get out of the way, by which inactive or sluggish tardiness, the accident is occasioned much oftener than by any other means. It more frequently occurs in hunting than under any other circumstances.

When neglected, or unattended to, if the injury is severe, ill consequences may ensue; the first step to prevent which is, to wash the part well with warm water, slightly impregnated with vinegar: press upon the wound a linen cloth till quite dry, then apply a pledget of lint or tow, well wetted with friar's balsam, or compound tincture of myrrh, covering it securely with a proper bandage, with a view to harden the surface, which is the leading object to be attained. This may be repeated the following day, if necessary, to farther close the mouths of such lacerated vessels as continue to ooze a lymph or ichor. If, however, the cut should be of such magnitude as to resist these means of intentional termination, it must be treated as a wound, and the horse not permitted to encounter work or dirt during its progress and cure. No greasy or unctuous applications should be made, if it can possibly be done without: as the best and most expeditious cure will be obtained by hardening the surface, and preventing a discharge; unless there is a deep and serious destruction of parts, in which case it cannot be obtained but by incarnation.

OVERTON. A son of King Fergus, dam by Herod, grand-dam by Snip, great grand-dam own sister to Regulus, was bred by Mr. Hutchinson, and foaled in 1788. At York, in 1792, he won a sweepstakes of 100gs. each, half forfeit, twelve subscribers. The same week he won a 50l. plate, added to a subscription purse, beating Rosalind, Storm, Halbert, and

two others. The next day he beat Halbert a match four miles, for 300gs. giving him a stone. At Doncaster he won the gold cup of 100gs. value; beating Huby, Rosalind, Smoaker, Gentleman, and Colchis. At York, 1774, he beat Halbert two miles for 200gs. After which he was taken out of training, and became a stallion at Skipton, near York, at ten guineas a mare. He is sire of those famous horses Cockfighter and Rolla.

OX-FEET, in a horse, is when the

horn of the hind foot cleaves just in the very middle of the fore-part of the hoof, from the coronet to the shoe; this though not common, is very troublesome, and often makes a horse halt.

OX-LEGS. An imperfection in some horses, which, though they have the back sinew of their fore-legs somewhat separate from the bone, yet their sinews are so small and so little set off, that their legs will become round after short labour.

P

PACE. An expression to signify the motion, or progressive action, of a horse, as well as one of the human species. When speaking of a man's pace, it is usual to say, he walks, he runs, or he goes a good pace; which becomes applicable to either, meaning that he is an expeditious walker, a fleet runner, or perhaps both. A horse has a great variety of paces, as a walk, trot, amble, canter, gallop, rattling-gallop, and at speed; some of which many horses have in great perfection, and are exceedingly deficient in others; as for instance, a horse shall be a most excellent trotter, who happens to be a shuffling, execrable, walker; he shall be a gay, airy, light figure in a canter, and wonderfully deceptive in speed. Good gallopers are very frequently bad trotters; and perfection is very difficult to obtain.

PADDOCK. In earlier times, a paddock was a space of ground inclosed with a wall or paling of a considerable height, and was used for the purpose of coursing deer with greyhounds. It was a mile long, and a quarter of a mile broad, with the farther end somewhat broader than the other, thus affording an opportunity for a greater number of persons to see the end of the course.

At the narrow end was a small building where the dogs were kept in a state of readiness to run the course. At this place two men were also stationed, one just within the door, with the greyhounds ready in slips; the other without the door, ready to let go the teaser for the purpose of driving off the deer. There were also pens or places for as many deer as were intended to be coursed, attended by several keepers. The deer was forced to run in a course prepared on one side of the paddock close by the wall or paling, and the other side was for the accommodation

of the spectators. Posts were also placed along the course.

1. The law post, which was next the dog house and deer pens, and distant from them about one hundred and sixty yards.

2. The quarter of a mile post.

3. The half mile post.

4. The pinching post.

5. The ditch; which was in lieu of a post, being a place made to relieve the deer from the farther pursuit of the greyhounds; and near this place the judges were seated, who were appointed to decide the wagers.

Every necessary precaution was taken in order to have the dogs fairly slipt; and the owners of the dogs drew lots for the choice of sides, and that next the wall, it seems, was preferred. The dog house being shut, one of the keepers turned out the breathed deer, which had no sooner reached twenty yards, than the teaser was slipped for the purpose of making the deer run. When the deer reached the law post, the dog house door was opened, and the greyhounds slipped. If the deer swerved, before he reached the pinching post, so that his head was judged to be nearer the dog house than the ditch, it was deemed no match, and was to be run again three days afterwards; but if the deer passed the pinching post, and swerved before he reached the ditch, the dog that was nearest the deer was deemed the winner. If the deer ran straight to the end, the dog that first leaped the ditch won the match.

This species of coursing, however, which appears to have been a favourite diversion with Elizabeth, has long since been laid aside; and the word *paddock* at the present time is understood as applying to a small inclosure of pasture having a pale

to protect it ; or to a small tract of land, surrounding, or appertaining to, a rural mansion.

PALATE. It is that arch of the mouth, in animals, which is surrounded before by the teeth and gums, and extends backward the whole breadth of the upper part of the mouth, as far as the great opening of the pharynx. This arch is partly hard and immovable, and partly soft and movable. The solid part is formed by the two ossa maxillaria, and the two ossa palati. The soft part lies behind the other. The membrane that lines the palate is full of small glands.

PALSY. An abolition of voluntary motion, or of feeling, or, more commonly, of both together. The distinctions made by physicians in this disease are noticed under PARALYSIS.

On the palsy, as it affects the horse, Gibson makes the following remarks. He considers it as having an affinity with the apoplexy, epilepsy, &c. in so far as the nerves are affected in both, but with this difference, that in cases merely convulsive the muscles are strongly contracted by involuntary motions ; whereas, in paralytic disorders, the nerves seem to have lost their sensibility. " In a palsy, (says he) the use of some part of the body, or sometimes, when it derives its origin from the head, the use of one whole side, is taken away, the parts are flaccid and relaxed, without any capacity of motion, and sometimes without sense or feeling, in which respect a palsy affects the body in a manner quite different from an epilepsy. When the palsy seizes one whole side, it is called hemiplegia, and when single parts or members only are effected, it is called paralysis partialis," or *local palsy*. It is known by the use of some particular member in a horse, being totally, or in part, lost ; particularly the limbs, sometimes only one, sometimes more, and especially the hind legs. This kind (Gibson says) is pretty usual, and tremors or shakings sometimes attend in such cases ; but of the many horses he had under his care, he did not notice above two that were seized with the hemiplegia, or that kind of palsy that seizes all the muscles on one side.

Horses that lie out at grass upon cold clay grounds often come up with numbness in their limbs, which they in some degree lose the use of for a season ; but this is not a true palsy, unless the head is also affected, but it is rather a case of rheumatism. In a true palsy there is ge-

nerally a very sizo state of the blood, proceeding, for the most part, from high feeding and want of sufficient exercise, from bad provender, from noxious fumes, or from bad air. Sometimes, on the other hand, it arises from too hard work and want of good keep, and not unfrequently from mere old age, which last is the most irremediable of all. When paralytic disorders happen to old horses that have been delicately kept, or, on the contrary, have been in bad keeping and hard worked ; if the disease seizes one whole side, it is scarcely worth our while to attempt a cure. If the palsy seizes only particular parts in old horses, the cure will be difficult, and for the most part only palliative ; for there will always remain somewhat of numbness and insensibility in those parts, which will render such horses of little use. But paralytic symptoms in young horses, proceeding from the other causes we have enumerated, are often removed without much difficulty.

In curing the palsy, Gibson advises the same internal remedies that are made use of in apoplexy, and in convulsive disorders. Here also he thinks it proper to bleed, rowel, and use outward applications, &c. As one of the best of this kind, and what he frequently applied with good success in paralytic numbness, he states the following :

Stimulating Liniment.

Take of Oil of turpentine, four ounces ;

Oil of bays, four ounces ;

Camphor, rubbed in a mortar, one ounce ;

Oil of amber, three ounces.

Incorporate these together into a liniment ; to which may be added, if needful,

Tincture of cantharides, one ounce. Mix.

Let the affected part be first well rubbed with a woollen cloth, that the liniment may penetrate with more ease ; then take a sufficient quantity and anoint the part with it thoroughly, working it well in the hand, and as fast as the liniment sinks in, renew it. This method we are advised to continue till the numbness goes off, and the horse shews that he has recovered the use of his limbs. " If the numbness and lameness be chiefly in the hind parts, in that case the liniment may be also rubbed into the spine of the back and loins, from whence the principal nerves that go to the limbs derive their origins ; but in this case the tincture of cantharides should be omitted.

Rubbing the parts often is of great use in all such cases, and therefore ought never to be neglected. If the head be affected on one side, so as to draw the horse's mouth awry, the forehead, temple, and cheek on that side ought also to be well rubbed and embrocated with the above liniment, and when this is the case, internals ought not to be laid aside; because we may suppose, with good reason, that the distemper has taken its rise from the head. If a vertigo happens, or if the lameness be universally on one side, but not an universal deprivation of sense and motion, as in the hemiplegia or dead palsy; in the first, viz. in a vertigo, all objects seem to turn round, so that a horse while any sense remains, with the least use of his limbs, will naturally follow the object of his motions. In such a case, all those things that have been recommended for the cure of an apoplexy are also proper, with rowels and outward applications. In the latter, viz. when the lameness is altogether confined to one side, the horse by leaning on the sound side will also turn round to the lame side, having the use of his limbs on the sound side to support him, but not so freely on the other; but as this may happen without a vertigo, the best remedy here is mild purging, and a liberal use of embrocations. A mixture of mustard seed, fresh ground, with camphorated spirits frequently rubbed into the diseased limbs, will be of great use, viz. an ounce of mustard seed to half a pint of the camphorated spirits, and towards the latter end of the cure, opodeldoc may be used with good success. If a lethargy happen, which is not unusual in the distempers of the head, few evacuations will be required; besides, now and then a clyster, with rowels on the neck and under the jaws; and the use of cordials and cephalics, are necessary in all lethargic symptoms, as castor, assafetida, salt of hartshorn, sal armoniac, and all other volatiles; but this can only be done to horses that are of some value."

Modern writers on the veterinary art have not noticed this disease in their works; and the reason probably is, that the cases of it are rare, and the animals, when so affected, not worth preserving.

PANNELS OF A SADDLE. Two cushions, or bolsters, filled with cow, deer, or horse-hair, and placed under the saddle, one on each side, so as to touch the horse's body, and prevent the bows from galling or hurting his back.

PANTON-SHOE, OR PANTABLE-SHOE. An old invention, contrived for receiving narrow and hoof-bound heels. Its sponges are much thicker on the inside than on the outside, so that the part which rests upon the horn, or hoof, runs sloping to the end, that the thickness of the inside of the shoe may bear up the heel, and throw or push it to the outside. Panton-shoes are described by Guillet to be proper for horses that have false quarters.

PARALYSIS. A palsy; often it signifies a palsy of a particular part. It is also called *catalysis*.

PARAMOUNT. The Lord Paramount possesses the privileges of sporting upon certain manors; as, for instance, Sir Thomas Gage claims and exercises a paramount free warren over all the extensive manors in Suffolk, from Ipswich nearly to Newmarket. His keepers invariably go upon each at the beginning of the shooting season and kill a single bird, merely to maintain this singular supremacy.

PARK. A park is an extensive tract of ground, inclosed with wall or paling, variegated with wood and water, generally stocked with deer, and generally containing an abundance of game. It becomes a park by the privilege of prescription, or by a grant from the crown. There are many parks belonging to the crown, as well as in the possession of opulent individuals. Windsor Great Park is the largest in the kingdom. It is upon record, that the park of Woodstock was the first in England, and was formed and inclosed about the year 1124. The example was followed by Henry, Earl of Warwick; after which park making might be said to become general throughout the kingdom.

PARTNER. There were five famous horses of this name in succession, from Old Partner in 1718, to Little Partner, in 1745. The first was called Croft's; the second, Moore's; the third, Grisewood's; the fourth, Bright's; and the last, Pearson's. Old Partner was got by Jigg, out of a sister to Mixbury; he was a most excellent runner, and produced an astonishing progeny of winners; from whom his blood is ramified through most of the studs in the kingdom. He was sire of Sedbury, Tartar, Cato, Traveller, Badger, Grisewood's Partner, Little John, Larkin's Looby, Duke of Bolton's Little John, Barforth, the Witherington Mare, Vane's Little Partner, Parker's Lady Thigh, Grisewood's Lady Thigh, Lodge's Roan Mare, &c. &c.



PARTRIDGES.

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PARTRIDGE. This interesting bird is an inhabitant of all the temperate parts of Europe. The extremes of heat and cold are unfavourable to its propagation ; and it flourishes best in cultivated countries, living principally on the labours of the husbandman. In Sweden these birds burrow beneath the snow ; and the whole covey crowd together under this shelter to guard against the intense cold. In Greenland the partridge is brown during the summer ; but, as soon as winter sets in, it becomes clothed with a thick and warm down, and its exterior assumes the colour of the snows by which it is surrounded. Near the mouth of the river Oi, in Russia, partridges are found in such quantities that the adjacent mountains are crowded with them. These birds have been seen variegated with white and sometimes all white, where the climate could not be supposed to have any influence in this variation, and even among those whose plumage was of the usual colour.

Partridges have ever held a distinguished place at the tables of the luxurious, both in this country and France. We have an old distich—

If the partridge had the woodcock's thigh,
'Twould be the best bird that e'er did fly.

These birds generally pair early in February ; and sometimes after pairing, if the weather be very severe, they collect together again and form into what are called *packs*.

Of partridges there are two kinds, the *grey* and the *red* ; the latter is the largest, but the former is what is generally found in this country. The grey partridge differs from the red, inasmuch as it is never seen to perch upon hedges or trees, which is not an uncommon occurrence with the latter.

The partridge is not, like the pheasant, partial to the wild scenes of the forest ; she is more the bird of cultivation : where the plough flourishes the partridge best thrives, and is generally discovered gleaning the stubble, or basking upon a sunny bank, and gets into many a difficulty which might have been avoided by feeding more at large ; sometimes indeed she is found in the forest, but it is chiefly when hunted by men and dogs from her more favourite haunts.

The male partridge weighs nearly fifteen ounces ; though instances have occurred where the male bird has considerably exceeded this weight : in September, 1804, Mr. Fortnam, of Henley, killed a cock partridge on the How Farm, Hambledon, Bucks, which weighed *twenty ounces and a half* ! Its girth across the breast was twenty inches and a half. However, the general weight of the cock partridge may be estimated at a trifle below fifteen ounces ; while that of the female may be reckoned two ounces less. The length, to the end of the tail, thirteen inches ; the eyes hazel ; the bill in young birds is brown, in the old bluish white ; the legs also are yellowish when young ; and, as the birds increase in age, they turn to a dark bluish white. By the bill and the legs, the old and the young birds are easily distinguished ; also the last feather of the wing is pointed after the first moult, but in the following year it becomes round, and ever afterwards presents this appearance. The general colour of the

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plumage is brown and ash, elegantly mixed with black, and each feather is streaked down the middle with buff colour; the chin, cheeks and forehead are tawney, the female paler than the male; under each eye there is a spot, with small warty excrescences; and above and behind the eye towards the ear, is a naked skin of a bright scarlet, which is conspicuous only in old birds: the legs of the male are furnished with a blunt spur or rather knob behind, and the breast with an ill-defined crescent of a deep chesnut colour, which takes place in the beginning of October; this mark rarely appears in the female, though instances have occurred where it has presented itself:—A Mr. Montague happening to kill nine birds one day, with very little variation as to the bay or chesnut mark on the breast, he was led to open them all, and found that five were females. On carefully examining the plumage, he found that the males could only be known by the superior brightness of colour about the head; which alone, after the first or second year, seems the only certain mark of distinction.

It is asserted, that the partridge will live unmolested, from fifteen to seventeen years; and the writer is inclined, from more than ordinary observation, to believe this position to be tolerably correct; though there are not wanting those who dispute this computation, and maintain that it lives only seven years, and gives over laying in the sixth. Partridges are at their full vigour when two years old.

“According to Ray, there is one third more male than female partridges hatched; and it is well known the old cocks will drive the young off the ground, and afterwards will frequently fight until they kill each other. When too many birds are left these contentions are sure to happen; and the consequence is a scanty produce, for the female is so pursued that she drops her eggs in various places, forming no nest, and perhaps never laying two eggs in the same spot.” This, *which is altogether a mistake*, has been copied from Daniel’s Rural Sports. In the first place, to assert that there is one third more male than female partridges hatched, manifests more of a fanciful theory, than a conclusion drawn from the experience of facts; as, we feel persuaded, no sportsman ever found this to be the case. From something more than thirty years experience, in various parts of England, the writer was never able to observe this preponderance in the number of male birds; yet he has occasionally found what are called *barren pairs* to be male birds; further, in the year 1823, in the month of October, he found a covey of seven birds in the manor of Lathom, in Lancashire, five of which he bagged, and these were five old cocks; and he has reason to believe that the two which escaped were old cocks also. Hence it would seem, that when it so happens that sufficient females are not to be met with, the males form a compact, and continue, if unmolested, to live in harmony till the following spring. But a circumstance of this sort is rarely met with; yet it appears to have originated the idea that “there is one third more male than female partridges hatched.”

As to “the old cocks driving the young off the ground,” this appears to have been a notion taken up from the circumstance of

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the domestic cock keeping the young males at a distance from his seraglio ; but it is grossly incorrect, and affords a striking proof of the facility with which error may be propagated, and received as sterling matter of fact. Other writers besides Mr. Daniel promulgated this doctrine through the medium of the press, and it remained uncontradicted till the year 1823 or 1824, when the subject was placed in a proper point of view in the *Annals of Sporting*.—The true state of the case is, that partridges (that is, the coveys) continue to live together in the greatest harmony till the season of love approaches ; when the old female is the first to take alarm : she manifests the utmost jealousy of the young hen birds, which she indiscriminately attacks ; nor does she spare the young cocks, and in this latter part of the contention, she is assisted by her mate, the old cock : thus general confusion ensues, the young birds are scattered abroad to seek mates where they can find them, and the old ones continue undisputed masters of the original domain.

That cock partridges may fight when they meet is highly probable ; but as to the hen dropping her eggs without forming a nest, it is quite ridiculous ; she will have been paired many weeks before the period of laying ; and the cock partridge protects his mate from insult with the most scrupulous attention.

“ So well aware (says Daniel) was the Duke of Kingston of this circumstance (the preponderating number of cock partridges) that he always had the partridges netted upon his manors so soon as paired, and *destroyed all the cocks!*” Such an absurdity needs no comment.

Those who are anxious for abundance of partridges should destroy as many of the old birds as possible, particularly of the old females.

The female lays her eggs, usually from fifteen to eighteen in number, in a rude nest of dry leaves and grass, formed upon the ground : these are of a greenish-grey colour ; and instances are not wanting, where the partridge has laid a greater number of eggs than the usual quantity. In 1793, on a farm occupied by Mr. Pratt, near Terlington in Essex, a partridge's nest was found in a fallow field containing thirty-three eggs ; twenty-three of the eggs were hatched, and the birds went off, and four more of the eggs had live birds in them ; the female covered all the eggs, seven of which, in the centre, were piled in a curious manner. In 1798, a nest was found at Eldborough, Somersetshire, in a wheat field, with twenty-eight eggs. In June, 1801, at Welton Place, Northamptonshire, the seat of Mr. Clarke, a partridge's nest was found in a plantation, in which were deposited thirty-three eggs. It may be remarked, however, that very old or very young birds never lay so many eggs as birds in the meridian vigour of life.

The period of incubation is three weeks ; and so closely do these birds sit on their eggs, particularly when near the time of hatching, that, if we are to believe what has been asserted on the subject, a partridge, with her nest, has been carried in a hat to some distance, and in confinement she has continued her incubation, and there pro-

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duced her young. Our readers will of course give credit or otherwise to this relation; but certain it is, that the bird will frequently suffer herself to be cut in two with the scythe rather than quit a spot where all her hopes are concentrated.

The young remain in the nest the first day they are hatched, and the next follow the parent birds in search of food, which for several succeeding days consists of those small insects which are found adhering to the blades of grass; they afterwards feed on ants' eggs, larger insects, and blades of grass.

At the season when the partridge is produced, the various species of ants loosen the earth about their habitations. The young birds therefore have only to scrape away the earth, and they can satisfy their hunger without difficulty. A covey that some years ago excited the attention of the Rev. Mr. Gould, gave him an opportunity of remarking the great delight they take in this kind of food. On his turning up a colony of ants, and retiring to some distance, the parent birds conducted their young to the place where they fed very heartily. After a few days they grew very bold, and ventured to eat within twelve or fourteen yards of him. The surrounding grass was high; by which means they could, on the smallest alarm, immediately run out of sight and conceal themselves. The excellence of this food for partridges may be ascertained from those that are bred up under a domestic hen; as, if constantly supplied with ants' eggs and fresh water, they generally arrive at maturity. Along with ants' eggs, it is recommended to give them, at intervals, a mixture of millepedes, or wood lice, and earwigs; as also fresh curds, mixed with lettuce, chick-weed, or groundsel. The fact is, that partridges, when hatched under a domestic hen, are generally too much attended, or, to make use of the homely proverb, killed with kindness. If, on being hatched, the hen was allowed to lead them forth into a garden or a field where plenty of insects and ants' eggs were to be met with, there is little doubt but they would thrive much better than in that state of semi-confinement to which they are generally subjected, and become much more hardy also.

It is said that the partridges which are hatched under a domestic hen retain through life the habit of *calling*, when they hear the chucking of those well known domestic fowls.

The eggs of the partridge are frequently destroyed by crows (the rook as well as the carrion crow) magpies, weasels, stoats, and other animals. It is no uncommon occurrence in the neighbourhood of rookeries, when the nest of a partridge is discovered by these birds, for several of them to dispute the prize with the most determined obstinacy; and we are inclined to think that this mischievous propensity of the rook is not generally known.

The female partridge generally covers her eggs when she leaves the nest; but when they happen to be destroyed, another nest is frequently made, and the female again deposits eggs. The produce of these second hatchings is a puny race; and the individuals seldom survive the dangers to which they are exposed or the severity of the winter.

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The affection of partridges for their young is peculiarly interesting. Both the parents lead them out to feed : they point out to them the proper places for their food, and assist them in finding it by scratching the ground with their feet. They frequently sit close together, covering their young ones with their wings ; and from this situation they are not easily roused. If however, they are disturbed, most persons acquainted with rural affairs know the confusion that ensues. The male gives the first signal of alarm by a peculiar cry of distress ; throwing himself, at the same moment, more immediately into the way of danger, in order to mislead the enemy. He flutters along the ground, hanging his wings, and exhibiting every symptom of debility. By this stratagem he seldom fails of so far attracting the attention of the intruder, as to allow the female to conduct the helpless, unfledged brood into some place of security.—“ A partridge (says Mr. White, who gives an instance of this instinctive sagacity) came out of a ditch, and ran along shivering with her wings, and crying out as if wounded and unable to get from us. While the dam feigned this distress, a boy who attended me, saw the brood, which was small and unable to fly, run for shelter into an old fox’s hole under the bank.” Mr. Markwick relates that as he was once hunting with a young pointer, the dog ran on a brood of very small partridges. The old bird cried, fluttered, and ran tumbling along just before the dog’s nose, till she had drawn him to a considerable distance ; when she took wing and flew further off, but not out of the field. On this the dog returned nearly to the place where the young ones lay concealed in the grass ; which the old bird no sooner perceived than she flew back again, settled just before the dog’s nose, and a second time acted the same part, rolling and tumbling about till she drew off his attention from her brood, and thus succeeded in preserving them.

During the period of incubation, the female experiences a considerable moult, the greater part of the feathers of the belly dropping off ; these feathers, however, are found in the nest, and there is some reason to believe, are plucked off by the bird for the purpose of covering her eggs during her temporary absences.

The great or general hatch takes place in the early part of June, and many of the birds are able to fly in the beginning of July.

The production of partridges is very uncertain ; if the season happens to be dry during the months of May and June, these birds seldom fail to be very abundant : on the contrary, heavy and frequent rains during the period of laying and incubation (and of the latter in particular) make great havock, particularly on the lower grounds. The most critical period is the earlier part of incubation ; if the bird has sat for some time on her eggs, and is near the time of hatching, the eggs are less liable to destruction from wet. When the young are excluded they soon acquire strength, and are comparatively speaking, but little liable to injury.

Mr. White, in his *History of Selborne*, notes, that, after the dry summers of 1740 and 1741, and for several successive years, par-

tridges swarmed to such a degree, that unreasonable sportsmen killed twenty, and sometimes thirty, brace a day.

We are told that "in 1803, so long and excessive was the drought at Oxford, that there were no dews for six weeks just after the hatching season, nor any rain fell for some months ; and Lord Hertford's keepers at Sudbourn found partridges and pheasants more than a quarter grown, that had their crops so distended for want of moisture, that they suffered themselves to be taken by the hand, and vast numbers were also found dead." At the first blush of this case, it appears extraordinary ; and it often happens that people give credit to the greatest absurdities, rather than be at the trouble to examine the statement, which, however, as in the present instance, will be frequently found to contain its own condemnation. It must be an extraordinary drought indeed, when the young partridges and young pheasants suffer from want of water, such a one as never occurred in the British islands ; the summer of 1803 is perfectly fresh in the recollection of the writer, and in that part of England where he was at that period situated, no ill effects were visible among the young partridges and young pheasants ; and to talk of the *crops of these birds being distended for want of moisture* savours too much of the burlesque to need a serious refutation ! Yet this very gravely appears in a note at page 77, vol. III. of the Rev. W. Daniel's Rural Sports.—A dry summer cannot be otherwise than very favourable to the production of both partridges and pheasants.

"A gamekeeper, of Mr. D. Grosvenor, in Dorsetshire, hearing a partridge utter a cry of distress, was attracted by the sound into a piece of oats, when the bird ran round him very much agitated : upon his looking among the corn, he saw a large snake (we are told) in the midst of the infant brood, which he killed ; and perceiving the body of the reptile considerably distended, he opened the belly, when, to his astonishment, two young partridges ran from their horrid prison, and joined their mother ; two others were found in the snake's stomach quite dead."

It is no uncommon thing to place partridge eggs under the domestic hen ; when she has sat the regular time, if the young do not appear, the feathers are glued to the inner surface of the shell, owing to the too great heat of the hen ; and in order to remedy the evil, the eggs should be held five or six minutes in water—the moisture will sink through the shell, loosen the feathers, and the young prisoner will then be set free.

The partridge when brought up under a domestic hen seldom forgets its wild origin ; and, as it acquires strength, it continues to estrange itself from the place where it has been reared, until it forsakes it altogether. Amongst the very few instances of partridges remaining tame was that of one which had been reared at the Rev. Mr. Bird's ; this, long after its full growth, attended the parlour at breakfast and other times, received food from any hand which offered it ; stretched itself before the fire, the warmth of which it seemed much to enjoy ; and at length it fell a victim to the decided foe of all favourite birds, a cat.

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In 1798, at East Dean, in Sussex, a covey of sixteen partridges were disturbed by some men at plough, and directed their flight across a cliff of the sea over which they continued their course about three hundred yards, when, as if intimidated or affected by the element, the whole were observed to drop into the water: twelve of them were soon afterwards floated to shore by the tide, and picked up by a boy who carried them to East Bourne, where he disposed of his game at nine-pence per head.

In the Leverian Museum were several specimens of the common partridge, the plumage of which offered a striking contrast to the general order of nature:—one was wholly of a pale cream colour; a second had the neck and half the head brownish ash colour, marked with darker streaks, round the neck a white collar, the under parts were also white, the crest like the common partridge, but very pale. There was a specimen also of a dun colour; and another much variegated and very beautiful.

A covey of nine partridges, we are told, were bred upon a farm of the Hon. J. Olmuis, at Sandon, in Essex, four of which were pure white, and three others were mottled.

In 1804, Mr. B. Dudley's keeper killed a partridge that had half the longest feather in each wing of a milk white, and the skin of the central claw of both feet was of the same colour.

In the year 1796, a covey of eight partridges was netted at South Cave, near Market Weighton, four of which were of the most beautiful clear white, three were pied; the other bird escaped.

Amongst the other enemies of the partridge may be enumerated the whole tribe of hawks, and of the sparrow hawk in particular; even the kestrel will frequently pounce upon the partridge; which he has no sooner seized than he plucks the feathers from the back, and begins to devour his victim alive. If, when a partridge has been struck, a person proceeds to the spot immediately, the hawk will release his prize, which will fly away with the feathers stripped off its back; if a minute or two be suffered to elapse, the bird will be unable to fly, and will be in part devoured.

It has been asserted that the carrion crow will strike the partridge; but this the writer is inclined to doubt.

In the mosses (morasses) of Lancashire and the north of England, and in some of the vallies in the Highlands of Scotland, the common partridge is found frequently in very considerable abundance: these birds, however, are somewhat smaller than the partridge which inhabits the more cultivated ground, and also of a darker colour; the former arising from the poverty of its situation, and the latter from the sombrous appearance by which it is constantly surrounded.

The red-legged partridge (red partridge) is also to be found in some parts of England. This bird is larger and more beautiful than the common partridge. The bill and irides are red; the forehead is grey brown; the hind part of the head is rufous brown; the chin and throat white, encircled with black; added to which is a band of white over each eye reaching to the hind part of the head; the fore part of the neck and sides of it are cinereous, with two spots of black on

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each feather ; the hind part of the neck rufous brown ; the back, wings, and rump, greyish brown ; the breast pale ash colour ; belly, sides, thighs, and vent, rufous ; the sides marked with lunular streaks of white, black, and orange ; quills grey brown, with the outer edges yellowish ; the tail composed of sixteen feathers ; the four middle ones grey brown ; the next on each side, the same, but rufous on the outside ; the five outer ones rufous on both sides ; the legs are red.

This species is abundant in various parts of Europe, Asia, and Africa ; it is numerous in many parts of Italy and France, and also in the islands of Madeira, Jersey, and Guernsey ; and is said to be so plentiful in the isle of Nausio as to be a pest to the inhabitants, who make it a rule to collect as many eggs as possible every year, in order to lessen the breed, which in some seasons have totally eaten up the fruits of the harvest. These eggs which are taken by thousands, are prepared with different sauces, and subsist the islanders for many days.

According to Tournefort, they are so tame in the isle of Scio, that they are driven to seek their food in fields like so many sheep, and that each family entrusts its partridges to the common keeper, who brings them back in the evening, and he calls them together by a whistle, even in the day time. Another account states, that "in the country round Trebigoud, a man was seen leading above four thousand partridges ; he marched on the ground while the partridges followed in the air, until he reached a certain camp, three day's journey from Trebigoud ; when he slept, the birds alighted to repose around him, and he could take as many of their number as he pleased."

We are told that in Provence persons have acquired the art of assembling numerous flocks of partridges, which obey the voice of their conductors with astonishing docility.

The red partridge is of a much more docile and familiar disposition than the grey ; and perhaps it was this species which Willeughby notices when he says "a certain Sussex man had, by his industry, made a covey of partridges so tame, that he drove them before him, upon a wager, out of that county to London, though they were absolutely free and had their wings grown."

The flesh of these birds is white, and considered by some as better flavoured than that of the grey ; in France they are frequently made into pies and highly esteemed. The red differ from the common partridge in being found in flocks ; whereas, among the latter only those belonging to the same covey congregate ; the red are also observed to perch on trees, &c. which the grey partridge never does.

As far back as the time of Charles II. several pair of these red-legged partridges were turned out about Windsor for the purpose of obtaining a stock ; but they are supposed to have mostly perished, although some of them or their descendants were observed a few years afterwards.

The late Duke of Northumberland procured many in hopes of their increasing upon his manors ; but his hopes were, for the most

part, disappointed. The late Earl of Rochford, as well as the Marquis of Hertford took much more than ordinary pains to establish them in this country; both these noblemen had not only numbers of red-legged partridges brought over from France, but also imported many thousands of their eggs, which were hatched under hens, and set at liberty at a proper age; by which means there were (and perhaps may be still) some years back, plenty of these birds upon the estate of the latter nobleman, near Oxford, in Suffolk. But they did not breed so numerously at St. Osyth (Lord Rochford's); the soil was not so favourable; yet, even here they increased, and, now and then, a covey of them was found at some distance from his Lordship's domains.

A few of these birds were turned out upon Knowsley (belonging to the Earl of Derby) some years ago; but they were not sufficiently protected, and therefore they very soon disappeared.

PASSADE, in the manege is a tread, or way, that a horse makes oftener than once upon the same extent of ground, passing and repassing from one end of its length to the other, which cannot be done without changing the hand, or turning and making a demi-tour at each of the extremities of the ground. Hence it comes that there are several sorts of *passades*, according to the different ways of turning, in order to part, or put on again and return upon the same *piste* or tread, which is called *closing the passade*.

PASSAGE, in the manege. To *passage* a horse, is to make him go upon a walk or trot upon two *pistes* or treads, between the two heels, and side-ways, so that his hips make a tract parallel to that made by his shoulders. It is but of late that passing upon a trot has been used, for formerly the word *passage* signified walking a horse upon two treads behind the two heels.

A horse is *passed* upon two straight lines, along a wall or hedge: he is likewise *passed* on his own length upon volts, in going sideways upon a circle, round a center, the semi-diameter being above his own length, so that he looks into the volt, and half his shoulders go before the croup. In all *passaging*, the horse's outward fore leg must cross or lap a great deal over the inward fore leg, at every second time of marking. In a *passage* on a walk, and that on a trot, the motion of the horse is the same, only one is swifter than the other.

PASSAGE upon a straight line, a sort of manege practised but little in France, but very much in Italy, and yet more in Germany. For this they choose a horse that is not fiery, but has a good active

motion, and leading upon a straight line, upon a walk or trot, they teach him to lift two legs together, one before and one behind, in the form of a St. Andrew's cross, and in setting these two to the ground, to raise the other two alternately, and keep them a long while in the air, and that in such a manner, that at every time he gains a foot of ground forwards. The beauty of *passaging* consists in holding the legs long in the air. The motion of the legs in this *passage* is the same with that of a walk or trot, for they go in the same order; and the only difference is, that in *passaging* upon a straight line the legs are kept longer in the air. For a *passage* there is so much art required, that a horse is two or three years in training to it; and of six horses, it is much if two succeed in it.

PASTERN or **A HORSE**. The part which intervenes between the joint of that name and the coronet of the hoof. This part should be short, especially in middle-sized horses; because long *pasterns* are weak, and cannot so well endure labour. Some horses indeed have them so long and flexible, that in walking they almost touch the ground with them, which is a great imperfection, and shews the animal unfit for any sort of fatigue.

PASTERN-JOINT, called also the *fetlock* of a horse. The joint above the *pastern*, which serves for a second knee in each fore leg, and a second ham or hough to each hinder leg. A horse is long or short jointed, according to the shortness or length of the *pastern*, and the short-jointed is the best.

PASTES FOR FISHING. See the article **BAITS**.

PATENT CARTRIDGE. I have
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used patent cartridges ; not, however, with unqualified satisfaction. They increase the force of the discharge, but are not absolutely free from balling. Further, after a few shots, they become troublesome in loading, from not going easily down the barrel. Cartridges somewhat similar were used in the East Indies long before their introduction into this country. They are used, I believe, by pigeon-shooters ; but neither the wire nor what is termed the expanding car-

tridge are worth the notice of the sportsman.

PATTEN-SHOE was a shoe formerly used with lame horses ; but seems now to be banished from practice. This shoe was constructed with a ring, circular, or nearly oval, at the bottom, which being fixed upon the sound foot, its intentional use was to compel the horse in all injuries to stand upon the lame leg, that a contraction of the muscular parts might be prevented.

PEACOCK. This beautiful bird, though not met with in a state of nature in this country, nevertheless merits notice in this place, as it affords amusement in the East Indies to the shooting sportsmen of that part of the world, and particularly to the British residents.

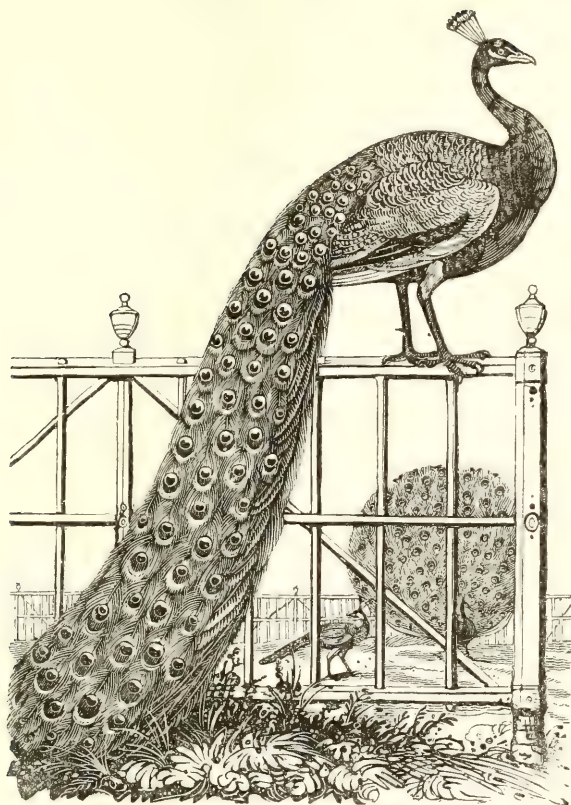
The peacock, by the common people of Italy, is said to have the plumage of an angel, the voice of the devil, and the guts of a thief. In fact, each of these qualities mark pretty well the nature of this extraordinary bird. When it appears with its tail expanded, there is none of the feathered creation can vie with it in beauty ; yet the horrid scream of its voice serves to abate the pleasure we find from viewing it ; and, still more, its insatiable gluttony, and spirit of depredation, make it one of the most noxious domestics that man has taken under his protection.

Our first peacocks were brought from the East Indies, where they are still found in great abundance in a wild state. So beautiful a bird, and one esteemed such a delicacy at the tables of the luxurious, could not be permitted to remain long at liberty in its native retreats. Hence, so early as the days of Solomon, we find in his navies, among the articles imported from the East, apes and peacocks. *Ælian* relates that they were brought into Greece from some barbarous country, and were held in such high esteem among them, that a male and female were valued at above thirty pounds of our money. We are told also that when *Alexander* was in India, he found them flying wild in vast numbers on the banks of the river *Hyarotis*, and was so struck with their beauty that he laid a severe fine and punishment on all who should kill or disturb them. Nor are we to be surprised at this, as the Greeks were so much struck with the beauty of this bird, when first brought among them, that every person paid a fixed price for seeing it ; and several people came to Athens from *Lacedæmon* and *Thessaly*, purely to satisfy their curiosity.

It was probably first introduced into the West merely on account of its beauty ; but mankind, from contemplating its figure, soon came to think of serving it up for a different entertainment. *Aufidius Hurco* stands charged by *Pliny* with being the first who fatted up the peacock for the feast of the luxurious. *Hortensius*, the orator, was the first who served them up at an entertainment at Rome ; and from that time they were considered as one of the greatest ornaments of every feast ; and the Romans spoke of the peacock as being the first of viands.

In the time of *Francis I.* however, we find that it was a custom to

BIRDS, *Plate VII.*



PEACOCK, *p.* 594.



RUFF AND REEVE, *p.* 752.

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serve up peacocks to the tables of the great, with an intention not to be eaten, but only to be seen. Their manner was to strip off the skin ; and then preparing the body with the warmest spices, they covered it up again in its former skin ; with all its plumage in full display, and no way injured by the preparation. The bird, thus prepared, was often preserved for many years without corrupting ; and it is asserted of the peacock's flesh that it keeps longer unputrified than that of any other animal.

Like other birds of the poultry kind, the peacock feeds upon insects and corn, but its chief predilection is for barley. But as it is a very proud and fickle bird there is scarcely any food that it will not at times covet and pursue. In the indulgence of these capricious pursuits, walls cannot easily confine it ; it strips the tops of houses of their tiles or thatch ; it lays waste the labours of the gardener, roots up his choicest seeds, and nips his favourite flowers in the bud. Thus its beauty but ill recompenses for the mischief it occasions : and many of the more homely-looking fowls are very deservedly preferred before it.

Nor is the peacock less a debauchee in its affections than a glutton in its appetites. He is still more salacious than even the cock ; and though not possessed of the same vigour, yet burns with more immoderate desire.

The peahen seldom lays above five or six eggs in this climate before she sits.—Aristotle describes her as laying twelve ; and it is probable, that, in her native climate, she may be thus prolific ; since it is certain, that, in the forests where they breed naturally, they are numerous beyond expression. The peacock lives about twenty years ; and it is not till the third year that it acquires that beautiful and variegated plumage that adorns its tail.

“In the kingdom of Cambaya (says Taverner) near the city of Baroch, whole flocks of them are seen in the fields. They are very shy, however, and it is impossible to come near them. They run off swifter than the partridge ; and hide themselves in the thickets where it is impossible to find them. They perch by night upon trees ; and the fowler often approaches them at that season with a kind of banner, on which a peacock is painted to the life on either side. A lighted torch is fixed on the top of this decoy ; and the peacock, when disturbed, flies to what it takes for another, and is thus caught in a noose prepared for that purpose.”

There are varieties of this bird, some of which are white, others crested ; that which is called the *peacock of Thibet*, is the most beautiful of the feathered creation, containing, in its plumage all the most vivid colours, red, blue, yellow, and green, disposed in an almost artificial order, as if merely to please the eye of the beholder.

Peacocks, or rather pea-fowl, are very abundant in India, and afford amusement to the British residents in that part of the world with the dog and gun. They are seldom, however, found at any distance from the jungle, into which a wounded bird will either fly or run if possible ; therefore, unless they are killed or completely disabled, they are lost to the sportsman, as few will be hardy enough

to venture after a wounded bird into the jungle, where the lurking tiger lies ready to spring upon his victim.

PEARL. Is that part of a deer's horn which is about the bur.

horse, a point much regarded by sportsmen.

PEDIGREE. The genealogy of a PEEWIT. See PLOVERS.

PERCH have one peculiarity, which is contrary to the nature of all fish of prey in fresh water (and they are so voracious as to attack their own kind,) that they are gregarious, swimming in shoals. The body of the perch is deep, the scales very rough, the back much arched, and the side line approaches near to it; the irides are golden; the teeth small, disposed in the jaws and on the roof of the mouth, which is large; the edges of the covers of the gills serrated, on the lower end of the largest, is a sharp spine, and the head is said to consist of no fewer than eighty bones: the colours of the perch are beautiful, the back and part of the sides being of a deep green, marked with broad black bars pointing downwards; the belly is white, tinged with red; the ventral fins of a rich scarlet, the anal fins and tail (which is a little forked) of the same colour, but rather paler.

This fish is a slow grower, and seldom with us is caught of an extraordinary bigness; in Lapland it arrives at a size far superior, for Schæffer asserts, "that there is a dried head of a perch preserved in the church of Luehlah, which from the top to the under jaw is above two hands broad." The largest ever heard of in this country was taken in the Serpentine river, in Hyde Park, which weighed nine pounds; but that weight is very uncommon.

One of eight pounds was caught in Dagenham Breach by Mr. Carter; and in the Angler's Sure Guide is noticed the portrait of one, taken at Oxford, twenty-nine inches long, and deep in proportion. Where the perch are considered to run large, their general length is from about ten to sixteen inches.

It is a common notion that the pike will not attack the perch, on account of the spinal fins which are erected at the approach of the former. This may be true with respect to large perch; but the compiler has had ample proof in many waters of the small ones being a most tempting bait for the pike, especially in Whittlesea Mere, where the trimmers baited with that fish were always most successful.

The perch is tenacious of life; and it has been said, they have survived a journey of sixty miles packed in dry straw.

Perch are found as well in clear, swift rivers, with pebbly, gravelly bottoms, as in those of sandy and clayey soils; they are fond of water moderately deep, and frequent holes by the sides of, or near to, gentle streams, where there is an eddy; the hollows under banks, among weeds and roots of trees, piles of bridges, or in ditches and the back streams, that have communication with the larger river. Ponds which are fed by a brook or rivulet perch thrive very fast in; their haunts are there chiefly deep holes, between weeds or stumps of trees, or on gravelly scours.

Perch spawn, according to the opinion of many, in February or March; certainly some of them spawn in May. In the Elements of

Natural History it is said, "in April or May, while rubbing itself on some sharp body, to deposit its ova, sometimes to the amount of 280,000 (this number is vastly beyond the calculation in Mr. Harmer's Tables, but this fish weighed two pounds and three-quarters, and the spawn alone seven ounces, a weight nearly as heavy as the whole fish described by Mr. H.) it lives mostly upon the smaller fishes, and in its turn is preyed upon by the pike, but more by the eel, and likewise by ducks."

The perch affords the angler great diversion, and not only the baits are various, but the modes of using them. Of worms, the best kinds are small lob-worms which have no knot, brandlings, red dung-hills, or those found in rotten tan, all well scoured; the hook may be varied from No. 2 to 6, being well whipt to a strong silkworm-gut, with a shot or two a foot from it: put the point of the hook in at the head of the worm, out again a little lower than the middle, pushing it above the shank of the hook upon the gut; take a smaller one, beginning the same way, and bring its head up to the middle of the shank only, then draw the first worm down to the head of the latter, so that the tails may hang one above the other; keeping the point of the hook well covered. This is the most enticing method that can be adopted in worm-fishing; use a small cork float, to keep the bait at six or twelve inches from the bottom, or sometimes about mid-water: in angling near the bottom, raise the bait very frequently from thence almost to the surface, letting it gradually fall again. Should a good shoal be met with, they are so greedy that they may be all caught, unless one escapes that has felt the hook; then all is over, the fish that has been hooked becomes restless, and soon occasions the whole shoal to leave the place. Two or three rods may be employed, as they require time to gorge sufficient to allow the angler to be prepared to strike them. To draw these fish together, three or four balls of stiff clay should be procured, and holes made in them; one end of a lob-worm should be put into each hole, and the clay closed fast upon them, and these (a yard or two distant from each other) thrown into the water where it is proposed to angle; the worms being alive in the balls, by their moving or twisting about, tempt the fish to feed upon them: but the angler's worms being of a superior kind, they will, on sight of them, leave those on the clay, and seize with eagerness the others: not perch only, but many sorts of fish are collected by this ground-bait; so that at times the gentle and other baits may be tried.

In a bad day, when the perch will not be thus brought on feed, take off the float, and extend the line as long as the rod will throw the bait out (which should be worms) without injuring it; cast it in all directions, sometimes across, at others up or down the water, drawing the bait towards you, and playing with a similar motion as in spinning a minnow; try not long in one spot; when a fish bites, slacken the line, and give time before striking: this often succeeds in bad weather, when all other methods fail, but more especially in a rough southerly or westerly wind.

If the angler roves with a minnow, let it be alive, (and by putting

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them as soon as caught into his minnow-kettle, and placing them in the stream, they are easily preserved) and the hook stuck in under the back fin, or through the upper lip; let the minnow swim in mid-water, or rather lower; use a cork float of a size that he cannot sink it under water, with a few shot, about nine inches from the hook, to keep him down, or, when tired, he will rise to the surface. When using the frog, put the hook through the skin of its back, and it will swim easier than if the hook was thrust through the skin of its hind legs; recollect to keep this bait as far from the shore as possible, for he will constantly be making to it: always give line enough at a bite, to let the perch gorge. May and June are the best months, as the perch are then prowling in search of the young fry of dace, roach, and other fish. Where pike are suspected to haunt, the hook should be fixed to gimp; as, in this way of fishing, they will take the bait as well as the perch.

Some use minnows, as in the dead snap for pike, with three fine gut twisted together, or a piece of small gimp, to which the hook is tied; the baiting needle must be shorter, the wire of it small, and the minnow exactly baited as a dace for pike. By this mode there is a greater certainty of hooking the fish, as all fish of prey seize their food by the middle: when the hooks are thus placed, they are more sure than the common method with a large hook, and a smaller above it; the way of using the latter is, to a hook, No. 3, tie a link of gut, or fine gimp, at about three quarters of an inch above it; tie a hook, No 9, (there are small ones called lip-hooks, adapted to this sole purpose of keeping the minnow in a proper position) join this link, which should be eight inches long, to another, by a small swivel closed at both ends, fastening a small lead weight (shaped like that directed to be used in the dead snap for pike) about an inch above the swivel; these swivels are to be fastened to the links with fine double silk well waxed, and the end of the upper link formed into a noose, (secured also with waxed silk) to fix it to the line; the point of the large hook is to be put in at the shoulder of the minnow, and down as far as the bend of the hook will permit, bringing the point out so that the tail may be a little curved with the bend of the hook, which will cause it to spin better: fasten the head with a small hook, by running it through the middle of the bottom, and out at the top of the upper, jaw. The only recommendation to this plan, is the readiness of baiting the minnow; the other being unquestionably the best for hooking the fish which bite at it.

Other baits for the perch, are loaches, sticklebacks, with the spines cut off, miller's thumbs, horse beans boiled (after the place has been well baited with them, put one at a time on the hook) cad-bait, bobs, and gentles.

Although generally termed a bold biter, the perch is extremely abstemious in winter, and scarcely ever bites at that season, but in the middle of a warm sun-shiny day: he bites best in the latter part of the spring, from seven to eleven in the forenoon, and from two to six in the afternoon, except in hot and bright weather, and then from sun-rise to six in the morning, and in the eve from six to sun-set. If

a day be cool and cloudy, with a ruffling south wind, perch will bite during the whole of it. In clear water, sometimes a dozen or more of perch have been observed in a deep hole, sheltered by trees or bushes; by using fine tackle, and a well scoured worm, the angler may see them strive which shall first seize it, until the whole shoal have been caught. The perch may be angled for and taken until the end of September, and indeed at particular times all the year round; but the preferable season is from the beginning of May to the middle of July.

In a lake called Llyn Raithlyn, in Merionethshire, is a very singular variety of perch; the lower part of the back bone, next the tail, is strangely distorted; in colour, and in other respects, it resembles the common kind, which are as numerous in the lake as these deformed fish; of which latter some have been taken of nearly two pounds weight. They are not, says Mr. Pennant, peculiar to this water, for Linnæus notices a similar variety found in small lakes near Fahlun, in his own country; and Mr. P. also heard it was to be met with in the Thames, near Marlow. In Sweden, the country people imagined this alteration in the shape of the perch to be occasioned by the quality of the water in those lakes, being impregnated with some mineral salt, especially as they are situated near the largest copper mine in Europe; but there is no copper mine near Llyn Raithlyn or the river Eynion, where trout are found crooked in the same manner as the perch, although from the taper make of the former, the curve does not appear so strongly as in the latter.

The Honourable Daines Barrington, in a letter to Dr. Watson, remarks, that these fish in Llyn Raithlyn (of which he had received specimens, as he desired, very small, for the convenience of preserving them in spirits) were not only crooked near the tail, but for about one third of the whole length of their body; and had likewise a very remarkable protuberance on each side, which he had opened with a knife, but it did not materially differ from other parts of the flesh, and when dressed, there was nothing in the taste to distinguish them from the common perch.

At Malham Water, not far from Settle in Yorkshire, the perch grow to five pounds weight and upwards: and this remarkable circumstance attends them, that these large fish are all blind of one or both eyes.

Perch will strike a flew net freely; the rougher the wind, if from the south or west, the more they range in quest of food: in a north or east wind they stir as little as possible from their holds: success with either net or line is not to be fairly expected with the wind from these quarters.

PERCUSSION POWDER. Percussion powder differs from common gunpowder inasmuch as it ignites with a blow, or, in other words, with excessive friction; and contains so great a quantity of elastic fluid, that, on explosion, its expansive force, compared with gunpowder, is at least in the proportion of twenty to one, perhaps much greater.

How long the composition of percussion powder has been known amongst able experimental chemists, I will not pretend to decide; but its discovery is not of a very recent date; and some years ago an attempt, which was made in France, to introduce oxymuriate of potass into the manufacture of gunpowder, was attended with fatal effects.

Percussion powder may be made of oxymuriate of potass, sulphur, and charcoal. I tried a number of experiments on the above ingredients, and, after varying the proportion of each in every possible way, it appeared that the following were the best calculated for the purpose:—

Oxymuriate of potass, nine parts ;

Sulphur, one part and a half ;

Charcoal, one part.

But I was surprised at the variations which might be made in the proportions or parts, without any perceptible difference in the result. One effect, however, I uniformly found, namely, excessive corrosion ; and those who have been in the habit of using Forsyth's method are very well aware of the urgent necessity of cleaning the lock immediately after using, in order to prevent the destruction of the percussion apparatus, as one night only would produce a degree of rust scarcely credible by those unacquainted with the nature of oxymuriate of potass. Whatever advantages were to be derived from the use of percussion priming, they were certainly much lessened by the trouble of cleaning, as the feculent matter deposited was much greater in quantity, and adhered with more obstinate tenacity, than that which is produced by the discharge of gunpowder ; I was, therefore, pleased to find that the following, in a great degree, remedied the evil :—

Oxymuriate of potass, one ounce ;

Antimony, one ounce ;

well pulverized, and made into a paste with spirit of wine in which a little resin or gum mastic has been dissolved : it may be granulated by forcing it through a hair sieve when it is nearly dry, and will be fit for use without further trouble. If spirit of wine be not at hand, I believe vinegar, without either rosin or gum mastic, will answer the purpose. Percussion powder is strong according to the force with which it is struck ; if ignited by slow friction, the explosion is weak.

In making percussion powder, I would wish to impress upon the mind of the sportsman the strong necessity of caution in the preparation. The oxymuriate of potass should be pulverized separately upon a smooth stone (or a smooth hard board will answer the purpose), but with a wooden muller, as it would be apt to explode if rubbed with a heavy stone muller, particularly if great velocity was used. It is of no consequence how the antimony is reduced to powder ; it may, indeed, be purchased at the druggist's in

powder, but seldom sufficiently fine for the purpose. However, when the oxymuriate of potass and the antimony are ground so as to be impalpable, they may be mixed with a pallet-knife (adding the spirit of wine or vinegar) and forced through the sieve as before mentioned. I have generally used spirit of wine in which a little resin has been dissolved, in preference to vinegar, because I am of opinion, that powder thus made up is not so apt to imbibe moisture. Eau de Cologne is supposed to be preferable to spirit of wine ; but the difference when using the powder is imperceptible. Excessive friction from iron or steel, or other very hard substances, would, no doubt, ignite this powder ; but it would be a difficult matter, however hard it might be rubbed between two pieces of wood, to produce combustion.

It has been before observed, that if sulphur and charcoal are used with oxymuriate of potass, a great excess of corrosion will result from the explosion : but antimony corrects or neutralizes the acidity or corrosive quality of the oxymuriate of potass, and renders the powder less injurious, in regard to rust, than even common gunpowder ; while it is, at the same time, in every other respect, superior.—An ounce of oxymuriate of potass, and an ounce of antimony, will make, I should suppose, about 10,000 primings. It may be mixed up in the manner before described in a few minutes, without the least danger. The oxymuriate of potass, when bought at the chemist's by single ounces, costs two shillings an ounce, and, I have no doubt, could be sold, with a reasonable profit, for much less ; an ounce of antimony will cost a penny : so that, including the spirit of wine, the expense of two ounces of priming powder will amount to little more than two shillings. When the superior strength of percussion powder is taken into consideration, it is much cheaper than gunpowder ; but, how far it is susceptible of application to fire arms beyond the priming, has not been determined ; yet the present forms of the breeches of guns are not calculated to admit of its use for the charge, on account of the very small quantity which would be admissible for that purpose. Nor, for the purposes of safety, would it be advisable to carry percussion powder in a spring-top flask, unless the springs were altogether made of something much softer than steel. If the sportsman thinks proper to carry percussion powder into the

field, independently of what he has already prepared for priming, I know of nothing more safe or more convenient than a small wooden box.

From the following paragraph, it would appear that gunpowder may be ignited by percussion:—"From experiments made in the laboratory of the Royal Institution, it has been found, that if gunpowder be mixed with pulverized glass, felspar, and particularly with harder substances, it may be inflamed by being struck violently on an anvil, though faced with copper, and struck with a copper hammer."

For military purposes, I should think percussion powder, for priming at least, an object of the first importance. However, as far as relates to the sportsman, the manufacturing of percussion powder by his own hands, or under his immediate inspection, is by no means necessary, since the copper caps, properly primed, may be purchased at any gunsmith's at a reasonable price. In the first instance, the component parts of percussion powder were a matter highly interesting to the philosophical and inquisitive sportsman: but since the manufacturing of this article has become so general, and attained a degree of satisfactory perfection, it may be safely confined to those whose business it is to supply the sportsman with this highly important improvement in the discharge of the fowling-piece.

PERCUSSION PRINCIPLE COMPARED WITH THE FLINT LOCK. We extract the following from Johnson's Shooter's Companion.—"This part of my subject very consistently brings me to the examination of some crude notions of Ezekiel Baker, which, though they have been committed to press with a studied affectation of candour and plausibility, are by no means consistent with that philosophic simplicity which a slight glance at his *"Remarks on Rifle Guns"* might induce a superficial observer to suppose constituted the very essence of his publication. 'On the 19th of February (says Ezekiel Baker) I proved a pair of double barrels on the percussion principle; and, though one pair had been proved at the Company of Gun Makers' proof-house, both in their single and double state—had stood the proof, and were marked as sound barrels—had been afterwards proved by me in the usual manner, both regular and water-proof; yet, when I proved them by the percussion principle, both barrels bulged, were much shivered, and were, consequently, spoiled.

'The other pair had undergone the strictest proof at my proof house, (continues the writer,) and such as would be generally considered sufficient to justify the strongest recommendation for safety; yet, on trying them by the detonating principle, the result was the same—both barrels were seriously injured.

'Feb. 22, 1823.—I have this day tried another pair of barrels (says Baker) which had undergone the regular proof, and which I had absolutely fitted to the stock for sale, by specific order—both barrels failed.

'Thus, for the purpose of satisfying numerous enquiries, for my own satisfaction, and on the principle of endeavouring to prevent the fatal accidents which are daily occurring, have I, at some expense, made these trials, in the hope of conducting to perfection in the use of rifles and fowling-pieces; but, above all, with an anxious desire to avert the dreadful calamities which may arise from pursuing a favourite recreation.

'These barrels had stood every proof which is usually considered safe; and yet, from the suddenness with which the powder is ignited by the detonating principle, all the barrels failed. Consequently, the result of these experiments convinces me, beyond any theoretical views entertained by others, that the proof of double barrels with the percussion locks can only be satisfactorily proved by the detonating principle. Every other proof, however it may appear to pass the ordeal of safety, is not a sufficient guarantee: and I can only add to my former injunctions, that no gentleman should venture to use the double-barrel with the percussion lock, without having it first proved by its own strength and power.'

Now, what does all this prove? Why, that to charge a gun, fitted up on the detonating or percussion principle, not so large a quantity of gunpowder is requisite; or, in other words, that, from the instantaneous ignition of the gunpowder in the barrel, a less quantity of it will produce the requisite force; nor could Ezekiel Baker have brought forward more incontestible proofs of the decided superiority of the percussion principle, than what he has adduced in a tone of condemnation; for he clearly manifests the greater force with which the shot must be driven when the gun is discharged in the manner just mentioned. He tells us the barrels which he tried 'had undergone the strictest proof at his proof-house, and such as

would be generally considered sufficient to justify the strongest recommendation of safety, yet, on trying them by the detonating principle, both barrels were seriously injured.' Thus, then, when the quantity of powder used in proving barrels is ignited by percussion priming, the force is so much increased, as to 'seriously injure,' if not burst, the barrels; and that, too, even after the said barrels had withstood the severest test of proof by water. It hence results, not only that the principle in question is the best calculated for the purposes of the sportsman, but advisable, above all, in the proof of barrels, as affording the best possible test of the strength of the metal, and, consequently, of the safety of those whose business or inclination induces them to use fire-arms.

Mr. Baker also enumerates what he calls the *advantages* and *disadvantages* of the percussion principle.—

'*Advantages*.—By the detonating or percussion principle, the whole of the powder is fired instantaneously; but the very quickness with which the powder is burnt, in my opinion, lessens its general effect; and I am satisfied more execution will be done at an equal distance with the charge from the common flint. Indeed, I have proved this fact, by many experiments from the same barrel.—In rain or snow, the percussion lock will act, from its detonating power, more correctly than the common flint lock; and this, by sportsmen, is considered its greatest and, I must confess it appears to me, its only advantage.

'*Disadvantages*.—Although the powder in the barrel is fired much quicker, the barrel is necessarily more strained; and to this cause I attribute most of the accidents arising from the bursting of barrels: as it stands to reason the suddenness of the ignition requires a greater thickness at the breech, and, consequently, that the barrel must either bulge or break, if it be not of a sufficient thickness to resist the power of the charge. This observation applies more particularly to double-barrelled guns when fired by percussion: and in all descriptions, the recoil to the shoulder is more powerful. If, on the other hand, I reduce the quantity of powder to prevent the chance of bursting, or to lessen the force of the recoil, then I can decide, from repeated experiments, that the same charge from the common flint lock, is more effective, and throws the shot with more strength, and in greater quantity, to the object; and I am

corroborated in this result by the practical test of many scientific sportsmen. I may be allowed to add, that, in my judgment, the percussion lock may mend a bad fowling-piece; but I never found it of peculiar advantage to a good one.'

To me, I must confess, it appears most extraordinary that Mr. Baker should have made these remarks after what he has said about the *proof of barrels*; it is 'passing strange,' also, that, while he admits the superior force or strength with which the shot is thrown by the percussion or detonating principle, he, nevertheless, says he is 'satisfied more execution will be done at an equal distance with flint.' And when he follows up this assertion by observing, 'indeed I have proved this fact by many experiments from the same barrel,' I can only say, that his experiments on this subject afford very different results from those of many other persons. Further, I maintain, without the fear of demonstrative contradiction, that it is not possible to make any flint lock, by any means whatever, shoot so strongly, or drive the shot with so much force, or so truly, as by the percussion principle.

As to the barrel being 'necessarily more strained,' this must always happen where the pressure or force is greater. If the same charge of powder be fired by percussion as with the flint lock, the force of the former will be found to exceed that of the latter to such a degree as would not fail to astonish those who had never made the experiment.

In fact, to sum up the whole, it may be justly remarked, that, by the percussion or detonating principle, a less quantity of gunpowder will produce the requisite force; and, from the very extraordinary rapidity with which the ignition of the charge of gunpowder in the barrel is accomplished, and from the effectual stream of fire which is driven into it, the discharge is produced much quicker, and consequently much better, than it is possible to effect by the flint lock.

Such, indeed, is the difference of the two plans, or principles, that those who have used the percussion lock would suppose the best flint lock to hang fire, should one of these afterwards happen to fall into their hands.

There has not, I believe, ever occurred a single instance where a person, having used a percussion lock, has laid it aside and recurred to the flint lock, at least, since the great improvements that have

taken place in the manufacture of the percussion powder, and also in the modes of applying it to the fowling-piece, and more particularly since the introduction of the copper cap.*

I feel a perfect conviction that there are very few sportsmen (I am inclined to think not one who has used it) who will not readily admit the decided superiority of the percussion principle, either as regards the weather, quickness, or effect:—indeed, it appears to me a self-evident fact, that as, by the detonating plan, the shot is driven quicker and stronger (the latter being the consequence of the former), it must be rendered more effectual than where, by a slower process, as in the flint lock, it is not possible it can reach the object with the same force or the same precision. Mr. Baker admits that the discharge of the percussion gun is more instantaneous and much stronger; and yet, by a strange anomaly, declares, that he is ‘*satisfied more execution will be done at an equal distance with the charge from the common flint!!!*’

When the percussion lock was first introduced, I was with difficulty prevailed upon to try it, as I could not conceive any improvement necessary or possible, believing that the fowling-piece had already attained the summit of perfection: but I was soon compelled to admit its great superiority. I resolved to adopt it; several plans were submitted to my inspection, Forsyth's among the rest; I chose a sort of lateral magazine, which I was induced to believe possessed every possible advantage; and I must admit it acted uncommonly well in the gunsmith's shop. With a gun fitted up accordingly, I took the field on the first of September; my dogs stood, and I walked deliberately up to the point; the birds rose and my gun missed fire! it missed fire seven times successively! I sat down with as much philo-

* The magazine of Forsyth was the first plan which introduced the application of percussion priming to the notice of the sportsman. This required more than ordinary attention, and yet became frequently out of order; various other magazines and plans were introduced, all objectionable; and, as they were attended with danger, and could never be depended on, so some of those persons who plagued themselves for sometime with these ill-digested applications, became wearied with disappointment, and again made use of the old flint lock.

sophy as I could muster, and endeavoured to ascertain the cause of these vexatious miscarriages: at length, I was willing to suppose I had rectified the error, and that I might depend upon my gun going. In the latter I was not mistaken, for, on next pulling the trigger, the piece was not only discharged, but the lock and part of the stock driven off into the bargain! I afterwards tried several other modes; and though one or two plans answered tolerably well, yet I met with no contrivance whatever which gave me complete satisfaction till the *copper-cap* fell under my observation. This I have used for many successive seasons, and, as far as I am able to form an opinion, it is much preferable to every other mode.

From more than ordinary practice and attention, I feel no hesitation in stating, that, by the percussion principle, the charge of powder in the barrel is ignited more instantaneously, and the combustion is more complete; the shot is, consequently, thrown or driven to the mark with much greater force, precision and effect; and this, too, will be accomplished with two-thirds of the common charge of gunpowder. It will be found, upon enquiry, (and I have repeatedly tried the experiment,) that whenever the percussion apparatus is applied to the fowling-piece, (supposing one which had before been fitted up with the flint lock, and of indisputable merit,) the charge of powder may be reduced one-third, with advantage. Mr. Baker says, that the percussion guns should be made very strong at the breech-end; in this, I not only agree with him, but I strongly advise every gun to be so made, and the percussion gun, perhaps, in particular; I would also advise every sportsman, for the purpose of safety, not to be afraid of carrying an extra ounce or two, and he may rely upon it, his gun will shoot the better for it; though, as long as the breech-end is sufficiently strong, I am of opinion it matters not how thinly it tapers to the muzzle. The discharge of a light gun is uniformly attended with a very considerable recoil, and seldom shoots well.

In accidental or chance shots, and also in woodcock or cover shooting, the percussion is preferable to the flint gun, from the superior rapidity of its discharge. In wet weather, and particularly amongst the drizzly rain on the grouse mountains, the former will be found much more effective, particularly since copper caps are made *water-proof*, and can thus be had, I

believe, at any gun-smiths. I am not aware, indeed, of any quality in the flint lock which the percussion does not possess in a higher degree; while less is to be apprehended from it on the score of accidental danger.

On the subject of the percussion principle, compared with the flint lock, I was surprised at reading the following passage in Colonel Hawker's 'Instructions,' &c. He says a detonator 'goes *quicker*, though not *stronger*!' This expression must surely have been made without due consideration, since it is clearly a self-evident fact, that the quicker the discharge, the stronger the shot must be driven. Or, supposing a cannon-ball to fly through the air at the rate of two miles in two seconds, and another to occupy six seconds in passing the same distance, can there be a doubt which of the balls will strike the object with the greater force? Further, I think no person will be hardy enough to deny, that, generally speaking, projectile force must entirely depend upon its velocity."

PERSPIRATION. Without a free perspiration no animal can continue in a healthy state. The matter of perspiration is separated through the skin, and also from the lungs, it is simply aqueous, containing only a small portion of salt.

Perspiration is of two kinds, viz. that which is imperceptibly transuding, and is called insensible; the other, which is sensible, is called sweat. It has been supposed that different vessels throw off these discharges, but that is not the truth; the same vessels which throw out the insensible, being more strongly acted upon, throw out the sensible perspiration also. The coats of all the vessels are perforated by the pores through which the matter of perspiration passes.

As the diseases which arise from obstructed perspiration are sometimes rapid in their progress, Mr. Clark's general remarks on some of the most prevailing, or most dangerous, cannot but be useful in this place.

"Horses generally (he observes) are more exposed to this accident after they have been overheated, more especially when they have been improperly treated, or wholly neglected, as very commonly happens.

When the animal is overheated by active exercises, or by too violent labour, the circulation of his blood is carried on through the vessels with uncommon rapidity. Breathing, consequently, becomes

more laborious to him, and more frequently repeated; whilst, at the same time, the secretion, from the pores of the skin, is considerably increased on the surface of the body, and transpires in humid steam like smoke. It is sometimes so profuse as even to run down, as if water had been poured on the animal's body.

As perspiration is very liable to be suddenly checked by cold, whether applied by a current of cold air, by water thrown upon the body, or by the horse being plunged into it, this secretion is apt to be retained in the body, where it occasions a variety of diseases, which either affect the system in general, as is the case in fevers, or, when more local, affecting the muscles with rheumatism. Hence, in the shoulders, neck, and legs, stiffness and lameness occur. When it affects the internal parts, it occasions colic or diarrhœa. If it settle on the lungs, it produces cough, catarrh, peripneumony, &c. When the pleura is attacked, the most violent pains or stitches, with difficulty of breathing, take place. When the glands of the throat, there is swelling and inflammation, threatening the animal with suffocation, and sometimes suppuration of these glands. When it falls on the wind-pipe, or the pituitary membrane which lines the cavities of the nose, disorders peculiar to these parts take place, such as the glanders." On the latter, which deserves the particular attention of every veterinarian, Mr. Clark makes many judicious remarks, and has with great accuracy, as we think, considered the enlargement of the contiguous glands (though a circumstance which gives name to the disease) a mere secondary symptom.

"In all the dissections I have made on glandered horses (says he), I never found these [the sublingual] glands affected; but the submaxillary glands that are situated between the jaw-bones on the outside, are always more or less swelled, inflamed, or indurated, according to the length of time they have been affected, or the virulence of the disease; they likewise discharge their lymph into the mouth, as in the human body; and their being constantly swelled in glandered horses, according as one or both sides of the pituitary membrane is affected, may arise from the same cause which produces the swelling of the inguinal glands, in the groin of the human body, in a gonorrhœa; that is, from the absorption of the virulent matter affecting them, and occasioning



Two Pheasants, from a drawing by J. H. W. P.

THEASANTS BASKING.

that swelling, induration, &c. Hence it is evident, that the swelling of the sub-maxillary glands in glandered horses, and of the inguinal glands in the groin of the human body, in a gonorrhoea, are only symptoms of these disorders."

Mr. Clark is of opinion, that this disorder may proceed from cold affecting the pituitary membrane which lines the cavities of the nose, &c. "for it generally may be traced to its very beginning, from some cold affecting the head, and which has either been ill treated, or totally neglected. Hence, therefore, it will be evident, that this disorder, like many others to which horses are liable, may be much easier prevented than cured, when once it has taken place." The necessity, he contends, is obvious, for paying proper attention to recent colds in horses; and for restoring the suppressed perspiration by keeping the head and throat warm, and not suffering the horse to go abroad before he is thoroughly recovered.

"When the pituitary membrane is affected with a recent cold (continues he) the small glands which are dispersed throughout its surface become inflamed, and instead of secreting a thin lymph like pure water, which serves to lubricate and moisten the passage of the nose and cavities of the head, as is the case in health, they discharge a viscid mucus, which falls from the nostrils."

When this formidable disease is the result, or even a remote consequence, of obstructed perspiration, no one will deny the importance of Mr. Clark's injunction to preserve horses, by every prudent means, as well from the action of external cold, too frequently arising from currents of cold air or cold water applied to the surface of the body, as from the effects of too much cold water taken into the stomach at once. The same judicious writer, in his observations on suppressed perspiration occasioned by cold air being inspired into the lungs of horses, when they are much heated and agitated from violent

exercise, says, "However dry and elastic the air may be that is drawn into the lungs of an animal body in respiration or breathing, yet, when it is discharged from them, it is evidently loaded with humid steams; and at the same time it loses considerably of its elastic quality. The moisture that comes from the lungs evidently shows, that a very great portion of thin lymph, or perspirable matter, is discharged from them at every respiration; and, as this action is increased and quickened by exercise, the discharge of this fluid will be the greater. But, as very cold air is apt to constrict or shut up, the cuticular pores on the surface of the body, in like manner, when it is applied to the surface of the lungs, especially when they are overheated, it produces the same effect there; hence, that perspirable matter which should be thrown out from them is retained in the lungs, and produces colds, catarrhs, inflammation, and consumption."

The diseases produced by suppressed perspiration probably depend on these circumstances: 1. The degree of cold applied. 2. The longer or shorter period of its continuance. 3. The greater or less susceptibility of the body exposed to it. 4. The predisposition to disease at the time. 5. Its partial or general application. 6. Its operation on distant parts by the medium of the nerves, or what is called nervous sympathy. The means of restoring this secretion are chiefly the application of warm clothing, and the internal use of sudorifics.

PESATE, PESADE, OR POSADE, in the manege, is the motion of a horse that, in lifting or raising his fore-quarters, keeps his hind-legs upon the ground, without stirring; so that he marks no time with his haunches, till his fore-legs reach the ground. This motion is the true means to fix his head and his haunches, to make him bend his fore-thighs, and to hinder him from stamping and clattering with his feet.

PHEASANT. This beautiful bird is very common in almost all the southern parts of the old continent; but in America it is not known. These birds were brought to Europe by the Argonauts 1250 years before the Christian era; and the bird which the sportsman now finds so numerous and so wild, was originally brought from the banks of the *Phasis* (whence the name *Pheasant*) a river of Colchis, in Asia Minor, and propagated artificially among us, and in other parts of the globe.

The pheasant is second to the peacock only in beauty. It is far

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beyond the powers of the pencil to draw any thing so glossy, so bright, or points so finely blended into each other. We are told that when Cræsus, King of Lydia, was seated on his throne, adorned with royal magnificence, and all the barbarous pomp of eastern splendour, he asked Solon if he had ever seen any thing so fine? The Greek philosopher, no way moved by the objects before him, or taking a pride in his native simplicity, replied, that, after having seen the beautiful plumage of the pheasant, he could be astonished at no other finery.

There have been instances of the cock pheasant weighing three pounds and a half; but the general weight of the male bird may be estimated at from two pounds eight ounces to three pounds: the hen is half a pound less. The length from two feet two inches to three feet. The bill is of a whitish horn colour (the older the bird the whiter will the bill be found); irides yellow, sides of the head deep scarlet, granulated and running into a point behind, and in old birds elongated over each jaw like the wattles of a cock, and dotted with minute black spots: from the nostrils springs a line of greenish black feathers passing under, and a little beyond, the eye; the rest of the neck and head is tinted with gold, changing to violet and blue in some aspects; and in the breeding season there is above the ears, a tuft of these gold tinted feathers that are like horns; lower part of the neck, breast and sides, glossy reddish chesnut, each feather margined at the end with black, or apparently purple, according to the light they are viewed in, and under the purple there is a transverse streak of gold colour; each feather on the shoulder and wing covert has more or less of a curved mark in the middle, bounded with a black line both within and without; the lower part of the back the same but less distinct; rump plain reddish brown, glossed with green; belly and vent dusky; the tail, from the middle feather to the end, is about twenty inches, the shortest less than five; and the whole consists of eighteen feathers, regularly shortening towards the sides; all of them have transverse bars of black on each side of the shaft, about twenty four on the two middle feathers, the rest in proportion; the legs are dusky, furnished with a strong membrane between the toes; they have spurs near an inch above the hind toe, shorter than those of a cock, but which increase with their age, and which become in the old birds extremely sharp, though they are round and blunt in the young ones.

The general colour of the female is brown, variegated with grey, rufous, and blackish; the tail much shorter, barred like the male, but of a lighter colour; the regions of the eye are covered with feathers.

We are told the pheasant will live for sixteen years.

This bird, though so beautiful to the eye, is not less delicate when served up to the table. Its flesh is considered as the greatest dainty; and when the old physicians spoke of the wholesomeness of any viands, they made their comparison with the flesh of the pheasant. However, notwithstanding all these perfections to tempt the curiosity of the palate, the pheasant has multiplied in its wild state; and, as if disdaining the protection of man, has left him to take shelter in the

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thickest woods and the remotest forests. Most others of the domestic kind, the cock, the turkey, or the pintada, when once reclaimed, have still continued in their domestic state, and persevered in the habits and appetites of willing slavery. But the pheasant, though taken from its native warm retreats, where the woods supply variety of food, and the warm sun suits its tender constitution, has still continued its attachment to native freedom; and, now wild among us, makes the most envied ornament of our parks and forests, where it feeds upon acorns and berries, and the scanty produce of our chilling climate.

It would appear that the monks of France were well acquainted with the delicate richness of the flesh of the pheasant, since they wished to monopolize it: one of their celebrated preachers, about the year 1216, represented, in one of his sermons, the pheasants, partridges, and ortolans, as addressing themselves to the clergy, and entreating to be eaten by them and them only—"That incorporated with their glorious bodies, they might be raised to heaven; and not go with impious devourers to the infernal regions."

At a later period the pheasant, in some measure, appears to have been held sacred; since, in the year 1453, Philip, Duke of Burgundy, at a great feast (at which were present all his nobility) swore a most solemn oath over a "*roasted pheasant*," that he would march against the Turk who had just destroyed the Grecian empire! His Barons all entered into the same tremendous engagement; but not one of them ever stirred towards the performance of his vow.

The cock pheasants begin to crow the first week in March, and the noise can be heard at a considerable distance: this crowing is an odd sort of noise; and though it is easy to perceive that it is intended for crowing, yet it is very unlike the vigorous salutation of this sort so often performed by the domestic cock:—it is neither so loud, so clear, nor so well defined.

It is asserted that "the male pheasants will frequently come into the farm yards in the vicinity of covers where they abound, and produce a cross breed with the *common hens*; and, it is said, that such is the spirit of the pheasant that this cross is sometimes resorted to by our most experienced breeders of game fowls." Now, all this may look well enough upon paper till it comes to be examined, when it will be found to want that highly essential quality, *truth*. Male pheasants *will not* approach common hens, and "produce a cross breed." If it be possible to induce them to couple with the domestic hen, it must be accomplished, in the first place, by breeding them under the latter, and training them up in a mew or aviary solely in the company of domestic hens; and even then the matter is doubtful. As to the game cock being increased in spirit by a cross of the pheasant, that is still more ridiculous; as the pheasant is by no means a courageous bird—every cross from the pheasant to the game cock could not fail to deteriorate the courage of the latter.

They breed on the ground, but do not pair like the partridge, one cock, like the common poultry, being sufficient for several hens. That pheasants will pair, however, the writer has had many opportunities

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of observing. In the neighbourhood of strong pheasant preserves, nothing is more common than for a young male and female pheasant to stray to some distance to breed: the cock, on such occasions, will remain in the immediate vicinity during the period of incubation, and is generally to be found with the hen and young ones, if unmolested, the whole of the following winter.—The hen lays from twelve to fifteen eggs, which are smaller than those of the domestic hen, and of a deeper colour. The young brood feed and are brought up much in the same manner as the young of the partridge, already described.

When in captivity, the hen pheasant will not lay so numerously as when in a state of freedom; nor will she sit so well, or pay the same attention to her young; in fact, she will frequently not sit at all in confinement; and, in this case, a domestic hen becomes her substitute. The pheasant therefore, on every account, is better left at large in the woods; its fecundity is sufficient to stock the forest; its beautiful plumage adorns it; and its flesh retains a higher flavour from its unlimited freedom.

Both pheasants and partridges are partial to nestling in clover, or other forward grass; which, when mown, too often exhibits occasion to lament this partiality from the number of eggs destroyed by the scythe. Gamekeepers should hunt them from such places, when they are about to lay, until the haunt is broken, when they retire into the corn, or other places. In some places, domestic hens are kept ready to sit upon any eggs* that may be exposed to the scythe, and with a little attention numbers are thus rescued from destruction. Joseph Warner, gamekeeper to the Earl of Sephton, for the manor of Altcar, in Lancashire, every year hatches and brings up great numbers of partridges and pheasants in this way: the young birds are suffered to escape as soon as they think proper, and they seldom fail to avail themselves of this permission as soon as they can make good use of their wings.

The pheasant hatches about the same time as the partridge, and the young brood remain in the stubbles and hedge-rows for some time after the corn has been cut, if undisturbed; otherwise they seek the woods and strong covers, and only issue thence to feed in the stubbles at morn and eve.

Pheasants, like partridges, devour vast quantities of insects; they feed also on corn; and, when this fails, acorns and the wild berries of the woods are made a substitute for it. We are even told by a French writer, that one of the king's sportsmen shooting at a parcel of crows that were gathered round a dead carcase, to his great surprise, upon coming up, found that he had killed as many pheasants as crows. But, in all probability, the pheasants (supposing the account to be true) had approached the carcase for the sake of the maggots which it contained, and not for the purpose of feeding upon the carrion.

* According to Reaumur, eggs may be preserved fresh and generally fit for incubation, five or six months after they have been laid, by covering the shell with a slight coat of varnish or mutton suet.

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Pheasants continue to sleep on the ground till the approach of winter, they then fly up to roost in the trees ; and when they thus retire for the night, the male, on flying into his roosting place, makes a noise, which is termed *cocketting*, and which he several times repeats ; the hens, on flying up, utter one shrill cry, and are then silent.

In attempting to raise a stock of pheasants, one or two covers that lie convenient for being attended to should be appropriated solely to their accommodation ; wherein should be placed small troughs about four feet long, and the food placed in them should be white pease, of which they are so immoderately fond, that if two neighbouring woods are tried, one feeding with the above, and the second with any other sort of grain, all the pheasants will resort to the pease, and desert the latter. Many persons have little heaps of buck wheat stacked in the woods ; and, where no pease are used, this method may answer very well.

In the early part of October, young pheasants stray from the preserves where they have been bred, and continue at a distance for about a fortnight. In the immediate neighbourhood of strong pheasant preserves, the young birds, which have attained a good size at the period just mentioned, leave the places of their nativity, and ramble to the adjoining fields and covers to the distance of a mile. In these situations they will be found for about a fortnight, and will afford good diversion to the sportsman. But, if unmolested, they will return to their former haunts, from which they were driven perhaps by the hen pheasants in the same manner as we see the domestic hen drive off her chickens when she thinks they are no longer in need of her assistance.

Pheasants shew a decided preference to alder-cars, willow-garths, saltings, or marshes close to the sea, or cliffs with any furze or cover in them, and which join the salt water ; for, like pigeons, they are very fond of salt. If, in such natural advantages of situation, they are moreover tempted to continue by a regular supply, during winter, of their favourite food, they will soon be as plentiful as can be desired : where indeed the pheasant can obtain food, and remain unmolested, he will seldom ramble.

In winter, pheasants, when fed, will come to the keeper's whistle, and will become almost as familiar with him as domestic poultry ; yet they are shy birds, and difficult to be tamed.

The counties of Suffolk and Norfolk are probably more productive of pheasants than any other parts of the kingdom. Upon some of the manors, the numbers have been so considerable, as to admit the killing of two thousand brace of cock pheasants annually. But the extensive slaughter of the cock pheasant is very often productive of the most injurious consequences the following breeding season, and great numbers of addle eggs arise from it. In order to promote as much as possible the breeding of pheasants, all the very old hens should, if possible, be destroyed ; as they become, in a great degree, barren, and create much confusion by driving all the younger and more prolific females from their vicinity.

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When pheasants are kept in a mew, we are told, that the young ones, when first hatched, "should be fed with hard boiled eggs, crumbs of bread, and lettuce leaves, well mixed together, with an addition of the eggs of meadow ants. At this tender age, two precautions are essential, viz. never to allow them any drink, nor carry them abroad until the dew is entirely off (every kind of humidity being hurtful); and that their food be given frequently and in small quantities, beginning at day break; always mixing it with ants' eggs; the place must be kept extremely clean, and they should be taken in before sun-set. In the second month, nutriment more substantial must be given, such as eggs of the wood ant, wheat, barley, ground beans, wood-lice, ear-wigs, and other small insects, to make a variety; and the intervals between the meals may be gradually prolonged. At this time they begin to be subject to vermin: place small heaps of dry earth or fine sand; by tumbling in which they will soon rid themselves of the painful itching occasioned by them. Water must also now be given frequently, and always clear, else the pip may be contracted; which, as in common chickens, is difficult to be removed: let the bill be rubbed with bruised garlic, mixed with tar. The third month is attended with new diseases; the tail feathers then drop and others appear; a sort of critical period to the pheasant; ants' eggs, given moderately, are efficacious in hastening the trying moment, and lessening its danger. The young birds may now be carried with the crib into the field where the colony is to be dispersed: if white clover grows in it, the young pheasants will pick the seeds out of the heads, and it will wonderfully strengthen them (white clover seed, given when wheat or other grain is used, will prove very nourishing); they must also at first be fed in the field with some favourite food, but never twice in the same spot, and the quantity diminished daily; and thus, by degrees, they will be constrained to provide for themselves, and become acquainted with the country. When able to procure subsistence, they will soon grow as wild as those bred in the woods; with this exception, that they will retain a sort of affection for those spots from which they were first resigned into liberty and nature."

We have a more circumstantial process yet to record on this interesting subject, which we shall follow with our own remarks: "it is well worth the observation (says the account, and we find it amongst that turgid mass of incongruities yclept Daniel's Rural Sports) of those who accidentally hatch them from eggs mown over in clover, grass, &c. as when obtained from the eggs of pheasants kept for the purpose.

"Have frames seven feet long, and two feet and a half wide, similar in their form to those for cucumbers, and without a bottom; the large end is to be made as a coop for the hen, the bars wide enough for the young pheasants to run from the hen, to feed in the frame, which is to be covered with a fine meshed net. If pheasants are kept from which the eggs are to be procured, there should be seven hens to one cock; to forward their laying, give white pease; when they drop their eggs, stick them in bran, with the small end down-

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wards, until there are fifteen, which are a sitting for a hen. Get small square boxes, wide enough for the hen to turn in, with covers to hasp down, and holes to admit the air ; make a nest of clean wheat straw ; every morning, take the hens off, and put them under small coops, allowing to each a quarter of an hour to feed and empty themselves ; then replace them on the nest until the next morning : when they have sat a fortnight, remember to sprinkle the eggs every morning with milk-warm water, just before the hen is put upon the nest, to prevent the eggs being shell-baked ; when hatched, let them remain with the hen eight hours to dry ; then move them into the coop in the frame, upon gravel, in the eye of the sun ; feed them with small ant eggs : after a week, move the frame upon grass in a warm place. There must be a sliding board to pen the young with the hen when moved ; each frame must have small pens for water, and that for the hen must be fixed to the coop, out of the young bird's reach. Every morning, give the young pheasants curd made with new milk ; small ant eggs during the day : at a month's end, put a small piece of saffron into their water, and every morning for each frame give a good sized toast steeped in chamber-lye, which will keep them free from distemper, and is of the first use in causing easy moulting. Use the young birds to a whistle when fed, which should be four times in the course of the day. When the poults are large, there should be a hole in the small end of the frame to let them out and in, and a sliding board to pen them in at night, when they are always to be covered with mats. Before the hole is opened in the morning, there should be food, such as large ant eggs, buck wheat, and other grain, laid near the frame ; every day this is to be moved further from it : by so doing they will soon partly learn to take care of themselves, and at the sound of the whistle will come in from all quarters, like pigeons ; when they gradually disregard the whistle, and at last desert it, they are safe, and capable of providing for their own sustenance and safety."

The writer has frequently met with *very knowing* gamekeepers, men remarkably wise in their own conceit, who have certain methods for every thing abstruse in their own profession ; they affect an air of mystery, and seem to consider a tedious and troublesome process as a striking proof of their superior genius ; or, at all events, so they would wish to have it considered ; and they thus frequently impose on the easy credulity of their employers. The extracts which we have just given respecting the breeding and management of young pheasants, savour strongly of the manner of a very ignorant, but a very obstinate, gamekeeper. If we examine the matter, we shall find that young pheasants, in a state of nature, are by no means tender birds ; on the contrary, they are very hardy, as is abundantly evident from the manner in which they not only endure, but thrive in, this variable, and frequently severe, climate ; and if, when it is the question to breed and rear them in a sort of semi-domestic state, we adhere as nearly as possible to that which the law of nature points out, and which is of course practised in the forest and in the fields, surely the chance of success, and of consequent satisfaction, are much

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greater. We have already expressed our ideas on the subject of rearing the partridge, to which we refer the reader, as it will exactly apply in the present case. Joseph Warner, already noticed a few pages back, on the subject of hatching and rearing the young of both partridges and pheasants, and who annually practises the system to a very considerable extent, treats these interesting young birds much in the same way as domestic chickens, only in addition he takes care to supply them with ants and their eggs till they are able to seek this food for themselves. He conveys the ant hills altogether in a cart to the yard, and there empties them out, and allows the young birds to feed and scratch amongst them as they please.

There are several varieties of the pheasant: of the ring-necked pheasant, the Earl of Berkeley had a considerable quantity at Crawford Bridge. The birds are precisely like the common pheasant, except that they have a white ring round the neck. There are white pheasants, crested pheasants, spotted pheasants, pile pheasants, Argus pheasants, but, of all others, the golden pheasant is considered the most beautiful. In the neighbourhood of Blenheim, gold pheasants are to be met with in a state of nature, as well as in some other parts of the country; the gold pheasant is smaller than the common pheasant, but equally capable of enduring the rigours of this climate. What is called the Bohemian pheasant is the largest and the boldest of the pheasant tribe which has fallen under the observation of the writer; the male much more resembles the game cock than any other variety of the pheasant; as this bird is larger and bolder, so he appears more hardy also, and there is no doubt with a little time and not much trouble, might be produced in abundance in our woods. The male will couple with the domestic hen when kept in a mew or aviary: his eye is larger and bolder than that of the common pheasant; he is more ruddy about the head; his neck is beautifully clothed with feathers of a glossy blue black; his back is covered with white striated with black; his tail of a similar colour, but longer and more elevated than that of the common pheasant: his spurs are longer and sharper; nor, when in a mew, does he hesitate to attack any one who happens to enter. The female is brown, less than the cock; she lays a much larger egg than the common pheasant, which is also of a deeper colour.

As the bird last mentioned is larger than the common pheasant, the gold pheasant is smaller; but its plumage is uncommonly beautiful, and of a prevailing crimson-yellow or gold colour; on the head is a most beautiful glossy yellow crest, the feathers of which appear like silk and fall backwards; cheeks almost bare and flesh-coloured; the feathers of the hind part of the head are orange-coloured, square at the ends and crossed with black lines; these are long and can be erected at will, like those on the neck of the cock; beneath these the feathers are green, very little rounded at the ends, and tipped with black; the back and rump are yellow; the upper tail coverts long, narrow, and crimson, and fall on each side the tail; the wing coverts chesnut and brown mixed; scapulars blue; quills brown, marked

with yellowish spots; the tail is long and cuneiform, the largest feathers twenty-three inches, and the outer ones very short; the colour chesnut and black beautifully variegated; the legs are yellow and furnished with a spur a quarter of an inch in length. The female is smaller, and wants the gaudy colours of the male; her prevailing colour is brown, but she is, nevertheless, a much handsomer bird than the common hen pheasant; the eggs of the golden pheasant are somewhat redder than those of the common pheasant, resembling, in some degree, those of Guinea fowl. The gold pheasant will breed, it seems, with the common pheasant: an instance of it is mentioned by Buffon, where a male of the gold kind paired with the common pheasant, but only one young bird was produced, which was a female. The flavour of this beautiful bird is said to exceed that of any other variety of the pheasant.

We have already remarked that Norfolk and Suffolk produce great numbers of pheasants; there are also many other places where these birds are very abundant: in Lancashire, for instance, on the manors of Mr. Watt, at Speke; on those of Mr. Blackburn, at Hale; on those of Mr. Willis, at Halsned; pheasants are very plentiful indeed; as well as in several other places in the same county; and also in many other parts of England. There have been a few produced in Ireland of late years; they are to be met with in tolerable plenty in some parts of Wales; and in the Lowlands of Scotland they are seen; but in the Highlands of that country, where attempts have been made to introduce them, they are very scarce; the mountains of Scotland are not calculated for the propagation of the pheasant, and whatever pains may be taken for that purpose, they will never be attended with much success.

In the month of January, 1810, an uncommon sized pheasant was shot in the plantations belonging to E. L. Irton, Esq. near Whitehaven: it weighed fifty-six ounces, and measured from the bill to the extremity of the tail, one yard five inches!

PHENOMENON. A chesnut horse, foaled in 1780, bred by, and the property of, Sir J. L. Kaye, Bart. of Grange Park, near Wakefield, Yorkshire.

Phenomenon was got by King Herod, his dam, Frenzy, by Eclipse, grand-dam by Engineer, great-grand-dam by Blank, great-great-grand dam, Lass of the Mill, by Traveller.

At York August meeting, 1783, Phenomenon won a sweepstakes of 50gs. each, for three years old, colts, 8st. 3lb. fillies, 8st. two miles (seven subscribers), beating Mr. Stapleton's Parlington, Sir W. Vavasour's ch. filly, by Morwick-Ball; Sir C. Turner's brown filly, by Ranthos; and Mr. Harper's Wonderful:—5 to 4 against Phenomenon, and 2 to 1 against Parlington. At Doncaster, Sept. 23, he won the St. Leger stakes of 25gs. each for three years old; two miles, (ten

subscribers) beating Mr. Garforth's Pacolet, Mr. Wentworth's Myrtle, and Mr. Stapleton's Parlington:—5 to 4 on Phenomenon.

At Newcastle-upon-Tyne, Monday, June 21, 1784, Phenomenon won a sweepstakes of 20gs. each, for four years old, colts, 8st. 7lb. fillies, 8st. 4lb. four miles, beating Mr. Bewick's bay colt, by Esper-sykes; Mr. Radcliffe's chesnut colt, by Herod; Mr. Ord's Balloon, and Mr. Burdon's Smart:—Mr. Radcliffe's colt the favourite. On Thursday, he walked over for the Corporation purse of 50l. two-mile heats. At York, August 25, he won one of the great subscription-purses, for five year olds, 8st. 7lb. four miles, beating Mr. Garforth's Faith, and Mr. Wentworth's Latona:—5 and 6 to 4 on Phenomenon. On the 27th, he walked over for another of the great subscription-

purses, for four year olds. Next day he walked over for the Ladies' purse of 50l. At Richmond, Sep. 8, at 7st. 7lb. he won the gold cup, for all ages, four miles, beating Sir W. Wynn's Miracle, aged, 9st.—4 and 5 to 1 on Phenomenon. Next day, he walked over for 50l. two-mile heats. At Doncaster, Sept. 29, he won the gold cup, for all ages, four year olds, 7st. 7lb. four miles, beating Col. O'Kelly's Dungannon, 4 years old, and Mr. Crowle's Moss Rose, 4 years old:—6 and 7 to 4 on Dungannon. Next day, at 8st. 11lb. he won 100l. purse, two mile heats, beating Mr. Crowle's Moss Rose, 4 years old, 8st. 5lb.—20 to 1 on Phenomenon. Same day, at 7st. 7lb. he won the Doncaster stakes of 10gs. each, with 10gs. added, twice round the course, (ten subscribers) beating Mr. Wentworth's Leveret, 3 years old, a feather:—6 to 1 on Phenomenon. Those were the only times of his starting that year.

At York, May 10, 1785, Phenomenon, 8st. 10lb. won a sweepstakes of 10gs. each, two miles, (six subscribers) beating Mr. Garforth's Prince William aged, 9st. 10 to 1 on Phenomenon. This was the last time of his starting. He started only twice besides the above, viz. at Epsom, and was beat by Saltram, &c. for the Derby stakes; and at York, by Maid of the Oaks, beating Myrtle, Cypher, Queen Esther, and another, for a sweepstakes of 25gs. each.

Phenomenon was afterwards a stallion, and covered in 1786, 1787, 1788, 1789, 1790, 1791, and 1792, in the neighbourhood of Boroughbridge, at 10gs. and a half; at Grange Park, in 1793, at 10gs. and a half; 1794, and 1795, at 25gs.; 1796, at 15gs.; 1797, at 10gs. and a half; 1798, at Boroughbridge, at 5gs. and a half.

PHINOCs. In the waters in the district of Lochaber, phinocs, a species of trout, are caught in great numbers, fifteen hundred having been taken at a single draught. They come in August, and disappear in November; are about a foot long; their colour grey, spotted with black; their flesh red; they rise very eagerly to a fly, and contribute much to the angler's amusement. The fishermen believe them to be the young of what they call sea trout, weighing thirty pounds: Mr. Pennant supposes this to be the grey trout, and that the phinocs of Scotland are the same species as migrate out of the sea into the river Esk, in Cumberland, from July to September, and are called

whitling, or white trout, although their flesh when dressed is red. They are most delicious eating.

PHLEBOTOMY. Until the circulation of the blood was demonstrated, the principles for this practice did not seem so clear as they are at present; and even now there is some diversity of opinion respecting bleeding in particular cases. The taking away blood is only proper when there is too much crassamentum in the vessels, or when it is to avoid a worse inconvenience than that of lessening the already too little quantity of blood. In general, the pulse is the best guide, both as to when to bleed, and the quantity to be taken away. When the pulse is full, strong, or tense, bleeding will always be proper, provided that a plethora be the cause, and not rarefaction; indeed, in old animals, the pulse seems hard from the rigidity of the arteries. In apoplexies from a sanguine plethora, bleeding is the principal means of relief. When bleeding is and is not convenient would require a particular treatise to relate. However, it may here be necessary to make one observation, that though bleeding is one of the most valuable medical remedies, in judicious hands, it often is converted to the most dangerous purposes, when ignorantly or rashly practised. Therefore great circumspection, in many respects, is necessary in the use of this remedy. Where the habit is strong, the pulse full, hard, and quick, it is generally right to take away blood in any disease with which the constitution may be oppressed. Where the habit is weak, and the contrary extremes take place with regard to the pulse, it is almost always wrong. And with respect to the quantity of blood to be taken away, as well as the mode by which the operation is to be performed, in order to relieve some oppressive symptoms which affect the head, lungs, or other of the interior parts, we must be regulated by the nature of the animal's constitution, and consider to which of these circumstances it has the greatest tendency. We shall here particularize the parts of a horse's body proper to bleed in:

1. It is usual to bleed horses in the jugular veins, which lie on each side of the neck, for the farcy, mange, repletion, and several other distempers; and also for repletion, twice a-year, to all horses that feed well and labour but little.

2. Blood is usually taken from the temples, with a small lancet, for bites or blows on the eyes.

3. Farriers have a lancet made on purpose for opening of veins beneath the tongue, for head-aches, or when a horse has been overheated by excessive labour, or for colics, and the vives.

4. It is usual to bleed horses in the membrane of the nose, without any regard whether they hit the vein or not; and this is also done for colics, vives, and being overheated.

5. Horses are let blood in the middle of the palate, above the fourth bar, with a lancet or sharp horn, when they have been harassed, or overheated and seem dull.

6. Blood is taken from the basilic, or thigh veins, of horses, for strains in the shoulders, or the mange in those parts.

7. Horses are blooded in the pasterns, with a fleam or lancet, for strains or infirmities in the hams or knees.

8. They are let blood in the toes, with a butteris or drawing-iron, for bruises in the feet, and infirmities in the legs, such as swellings and affections of the nerves.

9. The flank veins are sometimes opened, with a small lancet made for the purpose, for the farcy.

10. Blood is drawn with fleams in the flat of the thighs, for blows and strains in the haunches.

11. They bleed in the tail or dock, with a long lancet, for a fever and shortness of breath.

PHYSICING. The practice of administering purging medicines to horses, is on a supposition that they tend to preserve health, and contribute to activity.

"An indiscriminate use of purgatives (Mr. Denny very properly observes) is so prejudicial in veterinary practice, that more valuable horses have been lost by improper courses of them than from any accidental cause.

It is surprising that this erroneous notion, that horses frequently require to be purged should prevail, and that this important undertaking should so generally be left to the direction of a groom. Reasoning from analogy, would a man, whose strength was daily declining from some defect in the digestive organs, submit to the experiment of taking two or three doses of drastic purgatives, to recover the tone of his stomach, and repair his strength? Certainly not! For every man must know so well the debilitating effect of purging, as to be certain that such a course would tend only to diminish still more his remaining strength.

mon practice of giving horses physic in every disease. Discrimination and judgment can alone determine when purgatives are requisite, and when, on the contrary, they are injurious."

"It is commonly known (says Denny) that besides aloes and calomel, employed as purgatives, there are many others, as jalap, rhubarb, salts, and syrups of various kinds, in daily use, from the supposition that the efficacy of the medicine must be increased by the number of ingredients.

Such is the prepossession in favour of these useless medicines, that I have known men of abilities discountenance a simple but efficacious dose of physic, only because it was not prepared with syrup of buckthorn; which, though obtained genuine, as is hardly to be expected from any druggist, yet it can, in reality, only answer the purpose of so much treacle. The safest and only certain purgative is aloes. In particular cases, calomel is also necessary. But very large doses of other medicines employed for the human subject have no effect upon the horse, as experience sufficiently confirms. This may easily be conceived by those who are acquainted with the structure of the horse's stomach, which differs essentially from that of the human, exclusive of the difference in length of the intestinal canal. Unless therefore the stimulating quality of the medicine remain long after it has passed from the stomach, it will have no effect on the bowels; a circumstance which accounts for the failure above mentioned. The horse, in a state of health, requires a constant supply of food, to repair the waste of the body. As this aliment occupies a large space, the natural motion of the intestines is slow, so as not to expel their contents before the nutritious part is completely absorbed. Again, the quantity of matter remaining in the small intestines requires the constant stimulus of the bile, to propel it into the large ones. A constant supply of bile being therefore required, the horse does not stand in need of a reservoir for that fluid, and therefore is not provided with a gall-bladder; the bile, as it is secreted by the liver, flowing from its duct into the intestines.

Considering, therefore, the length of the intestines, and the slowness of their motion in the horse, it is natural to suppose that a powerful dose of physic will so increase this action, and forcibly propel their contents, as to produce in some part of the intestines violent pain and spasms,

This evinces the absurdity of that com-

succeeded by inflammation, which frequently terminates in the death of the animal; too many instances of which preclude the possibility of its being doubted.

In all cases, therefore, where the strength of the animal is not exactly ascertained, a small dose should be first given, which may be afterwards increased, if found necessary: thus every advantage will be secured, without hazard; for horses of the same breed, and size, differing as much in constitution as the human subject, the same dose, at different times, will produce very different effects."

Mr. Denny, in a very adequate manner, points out the cases in which purging physic may be used with advantage.

"Horses coming from camp (says he) into warm stables, should have one or two doses of mild physic administered.

Many of those inconveniences that arise from a sudden change of temperature, as swelled legs, inflamed eyes, colds, &c. would also be prevented, by having the doors and windows kept open, to admit a free passage of air during the few first days. It is likewise advantageous to give each horse a cold mash or two daily, and afterwards close the doors and windows gradually, to prevent any bad consequences from the transition, which might otherwise be hurtful.

Young horses should always have two or three doses of physic; and afterwards sufficient time allowed them to get into condition before they are sent to the riding-school. The service loses annually many valuable horses, by their being too hastily formed for the ranks; which generally produces inflammation of the lungs.

Horses require physic after having been long fed on green food; and also in the autumn, before preparing them for the field. Those also that have swelled and cracked heels, from their high feeding, or irregular exercise, will be much benefited by purging physic."

We cannot omit the following, which Mr. Denny has found extremely useful as physic for horses.

Purging Balls.

No. 1.

Take of Barbadoes aloes, in fine powder, four drachms;

Ginger, in fine powder, one drachm;

Treacle, enough to form the ball.

This is particularly suited to blood horses.

No. 2.

Take of Aloes, in fine powder, six drachms;

Ginger, in fine powder, one drachm and a half;

Treacle enough to form the ball.

This is better adapted for horses used in hunting, or on the road.

No. 3.

Take of Aloes, in fine powder, one oz.

Ginger, in fine powder, two drachms;

Treacle, enough to form the ball.

This is suitable for labouring horses.

The author observes, that if these doses should not be found sufficiently strong, a drachm or two of aloes may be added to any of them. In those cases where mercurial physic is deemed necessary, it is a commendable practice to give a calomel ball in the evening, and the aloëtic purge, No. 1, the next morning.

The following are Mr. Denny's *Mercurial Balls.*

No. 1.

Take of Calomel, one drachm;

Aniseeds, in powder, half an ounce;

Treacle, enough to form the ball.

No. 2.

Take of Calomel, one drachm and a half;

Aniseeds, in powder, half an ounce;

Treacle, enough to form the ball.

No. 3.

Take of Calomel, two drachms;

Aniseeds, in powder, half an ounce;

Treacle, enough to form the ball.

He advises the second aloëtic ball to follow the mercurial ball, No. 3, as these will be found sufficient.

The treatment of horses during a course of physic should be as follows:

"Mashes of scalded bran, with a handful of corn in each, should be given for one or two days previous to taking the ball, which is to be given early in the morning.

Two or three quarts of warm water only to be allowed for the first four hours. Afterwards give a warm mash, which is to be repeated two or three times during the day. The water given should be warm, but not in larger quantities than

usual. A small allowance of hay is proper at night. If mashes and water be refused, as is often the case, gruel must be given instead of them.

Next morning the horse should be walked out, for half an hour, or longer, if necessary; at which time the physic generally operates. He may be exercised again in the middle of the day.

Mashes and warm water are to be continued until the evening. His feed may then consist of equal parts of dry bran and oats; and the following day his food be as usual.

Horses under physic require additional covering; they being then more susceptible of cold than at any other time.

The practice of trotting horses violently, to assist the operation, is both absurd and dangerous. Almost every instance of physic failing to produce its effect is in consequence of mismanagement or neglect in the stable.

An interval of eight or nine days must be allowed before the second dose is given, during which period he should have one or two hours' walking exercise daily, taking care that he be well groomed on his return to the stable, and regularly fed."

Purging Horses.—Purging medicines are given to horses with different intentions, that is, either to prepare their bodies for active exercises, or to cure them of diseases. In the first case, they are always to be considered as in a state of health; in the second, in that of disease. Previous to entering on these different heads, and that they may be better understood, it will be necessary to premise a few things relating to the stomach and intestines, the chyle, the different systems of vessels, with their contents, which will serve to illustrate what may be advanced on the subject of purging horses.

The stomach of a horse, notwithstanding his size of body, is but small, and its coats are thin; the numerous circumlocutions and foldings of the intestines, are wisely ordered, to detain the aliment till such time as it is thoroughly drained of its nourishing particles by those vessels called the lacteals, the office of which is, to absorb or drink up, and to convey the chyle or nourishment into the blood; their mouths open into the inner cavity of the intestines. The length of the alimentary canal, from the upper end of the gullet to the anus or fundament, is said, by Doctor Braken, to be about 35 yards. The intestines have a motion peculiar to them-

selves, which forms its resemblance to that of a worm, is called *peristaltic* or *vermicular*; according as the motion is diminished, the evacuation by stool or dunging is in a great measure regulated.

The stomach is supplied with a humour or juice peculiar to itself, which, by mixing with the food, as the saliva, bile, and other juices, supplied by the pancreas, &c. undergoes a fermentative process of a peculiar nature, which is called digestion, and from which the chyle is the result.

The insides of the intestines are covered with a slimy mucus, which is separated from the glands, in order to preserve them from being irritated by the food, in its passage backwards. The coats of the stomach and intestines are supplied with an infinite number of blood-vessels and nerves, which are every where dispersed; and hence they are exceedingly liable to inflammation, irritation, spasms, &c.

Besides the vascular system, which includes the arteries and veins, there may be said to be another system of vessels, called *absorbents*; they are of two kinds, the lacteals, and the lymphatics. The use of the former has been already mentioned. The lymphatics are tubes or canals, furnished with valves, which convey fluids that are taken up by absorption on the external surface, and from the extremities of the body; they likewise absorb particular fluids from the different cavities of the body, and from the cellular parts, &c. which are by them conveyed into the thoracic duct, where it is mixed with the chyle, and from thence it is carried into the blood.—Let us now consider the manner in which purging medicines operate on the first passages only.

The action of purging medicines consists in irritating the sensible fibres of the stomach and intestines, by which means, not only the peristaltic motion of the latter is very considerably quickened, but also the secretions of mucus and lymphatic juices, and vapour, which ooze every where into the cavities of the intestines, are increased, together with unusual quantities of pancreatic juice and bile from their several sources; hence it will be obvious, how great a quantity of the soundest humours, or even the chyle that is derived from the food, before it is mixed with the blood, may be carried off by purging medicines, and how much the whole mass of fluids in general may be decreased and drawn off.

Since, therefore, purging is occasioned by giving such medicines as are found, by

their irritating quality, to stimulate the coats of the stomach and guts, and, at the same time, quicken the peristaltic motion of the latter, so as to cause them to shake or throw off their contents by stool, it would appear, that the different kinds of purging medicine differ only in degrees of strength, and that they operate no otherwise upon the different humours of the body than as they stimulate the first passages more or less, and hence cause a greater or lesser evacuation by stool. So that, by this operation, we only lessen the quantity of the fluids, and clear or scour the first passages from any offending matters that may be lodged there. From hence it may likewise be inferred, that there is no such thing as elective purgation, that is, by giving certain medicines, we drain off this or that particular humour from the body. This may be farther illustrated in the following case or example :—When a horse, which has swelled legs, or greasy heels, gets purging medicines, they do not act immediately on the fluids contained in the legs, by carrying them off only, they act by revulsion, that is, by drawing away the fluids, &c. from the stomach and intestines; those that are in the legs are, at the same time, absorbed or drawn away from the extremities by the absorbent vessels, to supply the want in the former; and hence the swellings in the legs, &c. subside.

It is a common phrase, when a horse is any way out of order, to say, that such a horse is foul in the body, or that he is full of humours, an expression which can only mean that the horse is in a bad habit of body; as to a horse's being full of humours, the propriety of the expression in this sense cannot be admitted, as every horse, even in the highest state of health, properly speaking, is full of humours, as every gland in the body, of which there is a considerable number, separates a particular humour, which becomes necessary for a variety of purposes in the animal economy; thus, the liver separates the bile, the testicles the semen, and every joint in the body has its glands, which separate a particular humour, and so of others. Therefore, the expression or phrase of a horse's being full of humours, in the common acceptation of it, is improper, and betrays a want of knowledge of the animal economy.

Many people are but too fond of giving purging medicines, and frequently prescribe them whether the case may re-

quire them or not, Doctor Bracken has a very pertinent remark on this head.—“This sort of evacuation (says he) seems very much to quadrate with the outward senses, and makes the ignorant part of mankind (whose heads are fuller of humours than their horses) imagine, that purging medicines carry off the offending matter in most disorders, never considering the general rule, which ought still to be kept in mind, viz. that, in proportion to any one evacuation's being heightened or increased, most, or all, of the other natural evacuations, are proportionally diminished.”

It is a practice with many people, to ride their horses very hard before they give them purging medicines, in order, as the phrase is, to stir up the humours, that, when they are afloat, (according to their ideas) they may be carried off by the purging. It has been already observed how exercise operates on the blood, by increasing its velocity to a great degree, and hence inclining it to an inflammatory disposition, which, in this case, is the very worst thing that could happen, upon the supposition that the horse is in a bad habit of body; for purging medicines, when they are given in this state, may occasion inflammation in some of the principal viscera or intestines; or they may bring on a fever, or other disorders, which, if they do not prove mortal, yet they may, as is sometimes found to be the case, occasion those disorders that terminate in blindness, incurable lameness, or in some chronic disorder, which may render the horse useless.

Riding horses about the day after they have got purging medicines, in order to forward their operating, if continued too long, till the horse is warm, or to produce sweating, ought always to be guarded against, as such treatment not only exposes them to catch cold, but hinders the operation of the medicine in the ordinary way; for it has been observed, that purging medicines sometimes go off by sweat, or by urine, &c. which the ignorant and unskilful are not acquainted with; they therefore conclude, that, as they see no great discharge of dung, the dose has been too weak, and give another too soon, without allowing a proper interval between them, which, at the same time, is made considerably stronger than the former, which weakens the horse very much, and a considerable time elapses before he recovers his usual strength.

I have already taken notice of the

great length of the intestines ; this, together with the horizontal or prone position of the body of a horse, is unfavourable to the operation of purging medicines, which, on that account, remain in the bowels a considerable time before they operate, being from eighteen to twenty-eight or thirty hours, according to the state of the bowels at the time, and, in some constitutions, even longer. In these cases, it is not advisable to give any medicines in order to quicken or hasten their operation ; walking exercise, but not long continued at a time, together with plenty of warm water, if the horse will drink, is the best and the safest means to forward the operation of them. At the same time, it will be necessary to notice whether the horse stales more than usual, as purging medicines, as I have just observed, are found sometimes to operate in that way, without any considerable evacuation by dung. I would likewise recommend a general caution in giving purging balls, which is, that the operator should push the ball over the root of the tongue, and that he be certain of the ball's being swallowed entire, and not broke or thrown out of the mouth ; mistakes of this kind have frequently occurred : when the ball breaks, one half, perhaps, is only swallowed, the other drops out of the mouth, or it may happen that the whole ball drops out unperceived. In these cases, it is concluded, from the purge's not operating in due time, that it has been too weak, and, therefore, the next dose is made considerably stronger, and hence a superpurgation ensues, attended with great sickness, loss of strength, and other bad consequences ; therefore, when purging balls are given to horses, the head should be kept up, and care taken that the ball passes down the gullet, which may easily be discovered sliding down from the outside ; but, if any doubt remains of its being swallowed, a little water may be given the horse to drink, and one gulp or two will put it out of all doubt.

It is a common practice to give purging balls early in the morning, upon an empty stomach ; this, in some constitutions, occasions great sickness, faintness, trembling, griping pains, &c. a long while before they begin to operate ; to prevent which, I have always ordered, and with success, a mash of bran to be given about an hour before the ball, which prevented these effects, and the purge operated in the most gentle and easy manner ; and,

perhaps, this practice would be advisable in all cases, and in all constitutions, when purging medicines are necessary.

Another error many people fall into is, that, although a purge operates very well, yet, if the horse is not very sick during its operation, they conclude that it will have no effect, nor will be of any benefit to the horse ; they therefore give the next purge made a good deal stronger, in order, as they say, to stir up the humours ; for they conclude, that the sicker a horse is under this operation, the humours are the more stirred up, and the easier carried off by the purge, without considering the danger that attends this operation, and how much they expose the life of the horse by such injudicious treatment.

When purging medicines are intended to be given to horses, it is necessary that they should be kept quiet, and rest for some time before, that is, from any violent exercise ; and the same rule should be observed for some days after they have done operating, walking exercise only excepted. It is owing to the want of these, and such like precautions, already mentioned, that so many accidents happen daily in the purging of horses.

It may be now expected, that I should make some observations upon the practice of purging horses, by way of preparing them for the race course, hunting, &c. It must be acknowledged there is a difficulty in combating a practice which too generally prevails, although there are a number of facts which will serve to demonstrate, that the purging of horses indiscriminately is not necessary in order to prepare them for these active exercises. On the contrary, it must, and indeed is, in many cases, exceedingly hurtful to horses, on account of the too frequent repetition of them, together with the too short intervals generally allowed between each purge.

As to the vulgar opinion of humours falling down into this or that particular part of the body, if horses are not properly purged, &c. before they are put to these active exercises, it is exceedingly erroneous, and must depend on a variety of circumstances, that ought to be taken into the account.

It may be of use to the young practitioner, to explain what is meant by the phrase of humours falling down ; but, at the same time, I must inform him, that this phrase is so generally in use, that, when a horse's eyes are affected, the humours are said to fall down into them,

although they are situated nearly in the most elevated part of the body. But, to explain their falling down to the extremities, I shall take a case that frequently occurs:—When a horse that is in the highest state of health, but too fat and full of juices, &c. and accustomed to stand much at rest, is suddenly put to violent or long continued exercises, his legs, &c. will be apt to swell soon thereafter; they will perhaps continue in that state for some time; they may at least break out in running sores about the heels, and form cracks, scabs, &c.; in this situation, it is then said that the humours have fallen down to the legs. Here a question naturally occurs, where were these humours before the horse got this hard ride, or other severe exercise, and how came they to fall down on this occasion only? This requires a different explanation.

It has been observed, in the article on exercise, the effects it produces when too sudden and violent, before a horse is gradually habituated to it for some time previous to his undergoing such violent or long continued exercises. The vessels being too full of fluids, they, from the rapidity of the circulation during the exercise, especially the finer capillary vessels, admit the grosser fluids that do not circulate in them in ordinary; they likewise are liable, in these cases, to rupture; hence the fluids they contained are extravasated into the cellular parts, where they stagnate, and, being then out of the course of circulation, they occasion a swelling. If this happen in the legs, as they are the most depending parts of the body (the humours are then said to be fallen down), the swelling causes a distension of the skin, &c.; the cuticular pores are then enlarged, and admit through them the thinner parts of the fluids to the outward surface on the skin, which, on being exposed to the external air, are then changed in their quality, and acquire, according to circumstances, either a soapy, clammy, or greasy appearance, or a sharp, fetid, ichorous quality, that erodes the skin, and, by lodging there, forms small ulcers.

It is well known, that horses, by good feeding, regular exercise, &c. may be brought to perform the most active exercises, and that many instances daily occur of horses both running and hunting, without undergoing any previous preparation by purging medicines; and it is likewise well known, that, even when purging medicines are given, still regular exercise

is found to be absolutely necessary, in order to habituate the horse to this kind of active labour.

Post horses likewise furnish a farther proof of what has been advanced; it is well known how they can be brought to travel very long stages, and with great speed, without any preparation farther than good feeding, and inuring them by degrees to this violent labour. Dr. Bracken, who understood this subject very well, and who was likewise a great sportsman, has been at great pains in exploding this manner of reasoning, by a variety of sound arguments, in his second volume of farriery improved, where he has likewise given it as his opinion, “that in most cases, good feeding, regular exercise, &c. will, in time, make a horse fit to start for a plate, without so much noise of the virtue of this or that drug or composition, to carry off grease, and mend his wind; for, in my humble opinion, the jockeys are too fond of giving purges to horses, whereby they weaken their constitution, by causing the fibres of the stomach and guts to become lax and flabby.” And, in the same volume, he mentions the following case of a mare of his own, “that she had run six years with only two purges; neither had she an ounce of any kind of medicine during that time, except every morning, and mostly every evening, about the bigness of a pigeon’s egg of my cordial ball; and, I fancy, she performed as well as most of her neighbours, for she won eight plates out of nine, and four out of six every year.”

It ought always to be remembered, that great evacuations weaken an animal body, and if they are repeated too frequently, and too close upon one another, without allowing a proper interval between each, or, if they are carried to excess, which is sometimes the case, the weakness in the animal system is thereby increased, the powers of life are quite overcome, and death follows of course.

I would not be understood, from what has been said, to mean, that purging medicines are never to be used on these occasions—no, I am fully sensible of their good effects, when judiciously administered, and horses properly managed during their operation; but I do not approve of repeating purge after purge, merely because this or that horse is to run or hunt, without first considering whether the animal be fat or lean, or whether he has been kept at hard meat, with proper exercise, or whether he has run a con-

siderable time, or late in the season, at grass ; all these, and a number of other circumstances necessary to be attended to, ought to be duly weighed, and maturely considered, before purging medicines are administered ; for example, if a horse has run long at grass, and is of a plethoric or full habit of body, evacuations by purging, and diuretic medicines, to a certain degree, are necessary, together with length of time, good feeding, and regular exercise, to bring his body into that proper habit to enable him to perform, with freedom, such active exercises. But, if a horse is of a lean, low, or dry habit of body, whether it may proceed from the want of proper food, from fatigue, &c. why reduce him still lower by repeated evacuations of any kind ? There is such an inconsistency in this practice, that it would not even deserve to be mentioned, or taken notice of, if it were not too much practised every day ; for, with some people, it is no matter of consideration with them what state or habit of body a horse may be in, that is, whether he be of a fat, or full, or lean dry habit of body, still he is said to be full of humours, and which must be purged off before he can run, &c. Horses, in the latter situation, require only good feeding, and regular exercise, to strengthen and improve their constitutions, which cannot fail of taking place, if the viscera are sound, and the horse otherwise in a healthy state. And, even although a horse may be a little inclined to be fat, or of a plethoric habit, yet, from the use of diuretic medicines, which are commonly given on these occasions, together with regular airings and proper exercise, good feeding, dressing, &c. he may be brought into that proper habit of body, which will enable him to perform the most violent labour with the greatest ease to himself, and without any bad consequences arising from it.

But, farther, from the too frequent use of purging medicines to horses, their constitutions, though otherwise good, are ruined by it, their strength is impaired ; it likewise contributes to shorten their days. Besides, it frequently happens, that, when they are brought to action too soon after such evacuations, their strength being quite exhausted by the treatment they have undergone, they fail in performing what was expected from them.

From these, and a variety of other arguments which might be urged, and which will readily occur to the judicious reader, it is obvious, that repeated evacuations,

of any kind, are not necessary to horses, in order to prepare them either for running or hunting ; and, if those that are intended for the latter were only allowed the spring grass, and taken up about the middle or towards the end of June, before the grass becomes too rank, although it may be rather inconvenient to have them in the house at that season, yet the owner would find his account in it ; the allowance of oats may be but small for some time, and which might be increased, together with the horse's exercise, as the hunting season approached. Running horses might be treated in the same manner, according to the season in which they are to run, allowing both a greater length of time in the habitual practice of these exercises, together with proper feeding, dressing, &c. This treatment, together with the use of those alterative and diuretic medicines, which are usually given on these occasions, would render horses much stronger and fitter for these active exercises, without wearing out their constitutions by the repeated use of purging medicines, too frequently very injudiciously administered.

I shall close this head with a case that happened here some years ago : Two military gentlemen betted their horses to run against one another on Leith sands, for a considerable sum, and which was to take place three weeks after the bet ; the horses to be rode by their grooms. Captain R—'s was a pony about thirteen and a half hands ; Captain M—'s was a gelding about fifteen hands high ; both their grooms were bred at Newmarket, and were keen advocates for bleeding and purging (notwithstanding both the horses had been kept on dry food and in the best order, and the short interval of time for such treatment), in order to prepare them for running, &c. Captain M—'s horse was blooded once, and purged twice ; Captain R—'s was blooded once, and purged once ; they were both sweated in the stable with a great load of clothes ; at the same time, their stables, though separate, were kept uncommonly hot and close shut up, night and day, in the midst of summer. From this treatment, they soon lost their appetite for food, and, in about eight or ten days, they were hardly able to undergo their exercise on the sands, their strength was so much exhausted by the treatment they had undergone, the constant and violent sweating in the stable, which, of all evacuations, when continued, weakens a horse the

most. In this situation, Captain R— gave up his bet as lost, together with his pony, for which he had a great value; luckily for him, however, his groom, who was rather inclined to be corpulent, had put himself under a course of physic, &c. in order to reduce his weight; the pony was then put under my care, with another groom to attend him; his cloathing was immediately reduced to a single rug, the stable windows were thrown open in order to admit fresh air, the pony recovered his appetite for food, together with his strength, spirits, and activity; whilst his antagonist continued under the manner of treatment above mentioned. And, although bets were considerably against the pony at starting, yet he won with great ease, and which Captain R— frankly acknowledged was entirely owing to the difference of treatment they had been under.

I have hitherto confined my observations on the administering purging medicines to horses in health, in order to prepare them for active exercises, as running, hunting, &c.; it remains to consider their use in diseases.

It would take up too much of the reader's time to enumerate the various forms of prescriptions that are in use for purging horses, or to confute the ridiculous encomiums bestowed on the variety of recipes that are handed about with a *probatum est*, or attestation of their peculiar virtues in carrying off this or that particular humour, &c. as many of these compositions, when examined, appear to be a confused jumble of ingredients, calculated more for the apothecary's profit, than benefit to the patient; and the bad effects arising from them in practice, are too apparent in a variety of cases which occur daily.

The substances that are used for purging or emptying the alimentary canal, may be distinguished into two kinds, the lenient, which open the belly gently; and the drastic, which purge more briskly. The lenient ought always to be preferred when there appears any unusual commotion in the vascular system, which may easily be known from the quickness of the pulse, &c.; for, although purging medicines increase the motion of the pulse during their operation, yet they afterwards abate or lessen the motion of the blood, by drawing off a considerable quantity of the animal fluids by stool; they likewise clear the intestines of sharp stimulating matters or worms, which occasion an unusual degree of irritation in the system; they

likewise may be given with different intentions, as circumstances may require, in small doses, to keep the body open, and prevent an accumulation of feces or dung in the intestines, which happens in diseases. In cases of frequent returns of the gripes or cholic, but not during the fit, lest the guts should then be inflamed, they should therefore be given in the intervals, in order to prevent the return of the complaint.

But, in cases where it is thought necessary to clear the intestines thoroughly in strong robust horses, the drastic purges may be given, provided there is no great commotion in the circulation of the blood at the time. Purging medicines are of great service in cases where the intestines appear to be loaded with viscid or thick slime, or when it appears, by long continued costiveness, that the peristaltic motion of the intestines is in some degree suspended; in gross habits, especially where there is any tendency to swelling in the legs, attended with running sores, &c.; in dropsical swellings in any part of the body; in diseases of the head, rheums, or defluxions about the eyes; in rheumatic lameness, when the pains seem to move from one limb to another; in the jaundice; in obstinate coughs, especially when the horse is of a full habit of body; in most cutaneous diseases, or when a number of small pimples or lumps arise on the skin, and suddenly disappear again, or when the lumps discharge a sharp fluid of an ichorous quality; in plethoric or full habits, when the horse is intended for violent or active exercises, as running, hunting, &c. in cases where it is judged necessary to lessen the general mass of fluids, or to divert them from flowing to any particular place in too great a quantity, as in inflammations of the lungs; in this last case, liquid purges are most proper, as they operate more expeditiously. In very delicate constitutions, rhubarb should constitute the greatest part of their purging medicines; they are likewise most proper in cases of want of appetite; no doubt there may be other cases where purging medicines may be necessary; but these must depend on the discretion and judgment of the prescriber.

On the other hand, it will be prudent to avoid giving purging medicines during extreme cold weather; likewise in all feverish complaints, when the pulse beats strong and quick, till such time as these symptoms are considerably abated; in all

cases of extreme weakness, whether arising from fatigue or long continued diseases; in all lean dry habits, unless there is reason to apprehend it proceeds from worms; in cases of very obstinate costiveness, till such time as that complaint is in some degree removed by clysters, soft feeding, &c.; in cases when a horse labours under any violent acute complaint; in diarrhœa or looseness. Aloetic purges, or those in which aloes enters into the composition, are to be avoided likewise in severe colicks or griping pains, although liquid purges, that are quicker in their operation, and less irritating, may be given with safety in the intervals, when it is observed that horses are subject to frequent attacks of this complaint.

Previous to the giving of purging medicines to horses, especially to those which have been kept on hard meat, it will be prudent to keep them from all violent exercises for some days before the purge is given. If they are fat, and of a full habit, it will be necessary to draw some blood, to lower their feeding, and to give them that which is soft and relaxing, as boiled barley, mashies of bran, malt, &c. When horses are to be purged at grass, no preparation is necessary, farther than, in plethoric or full habits, to treat them as above, observing, at the same time, that they be not costive, as this frequently happens although feeding on grass; in that case, they are to be taken into the stable, and treated as if they had been on hard feeding.

In giving purging medicines to horses, it will always be most prudent to begin at first by giving mild lenient purges, in order to find out the strength of the constitution, &c. as very strong robust horses, to appearance, are sometimes easier purged than those of a more delicate make; and it frequently happens, that the same horse is easier purged at one time than at another, according to the state of the stomach and intestines at the time the purge is given.

Mild purges are therefore much safer at all times, and of more benefit to the constitution, than too strong ones; for the latter cause too great an irritation of the stomach and bowels; hence follow

griping pains, great sickness, &c. and sometimes inflammation of the intestines; they likewise may occasion a superpurgation, by which the bowels are so much weakened, that they never afterwards recover their former tone; and hence follow loss of appetite, general weakness, and, perhaps, an habitual diarrhœa or looseness.

When it is intended to give mercury with purging medicines, which is necessary in cases of worms, or as an alterative, it is proper to give the mercury in the evening, and the purging-ball the next morning, as formerly directed. In this case, great care should be taken that the horse be not exposed to cold, nor suffered to drink very cold water, although he may be indulged in plenty of water milk-warm, mixed with a little oatmeal.

PIAFFEUR. In the manege, a kind of movement in a proud and stately horse that, being full of mettle, wishes to go forward; this excessive eagerness makes his motion the greater as you endeavour to keep him in, and bends his leg up to his belly: he snorts, traverses if he can, and by his fiery action shews his restlessness, whence some, though very improperly, say, he dances. Such horses as these, or such as are bred to passage upon a straight line, are much admired in processions and magnificent festivals.

PICKER. A horse-picker is a small iron instrument, so truly convenient upon many emergencies, that a prudent traveller, or experienced sportsman, is hardly ever seen without one annexed to the handle of a knife which he carries in his pocket: its use is to extract stones, pebbles, or flints, from the bottom of the foot, when they are picked up in hunting, or upon the road. They are sometimes so firmly fixed between the inner edge of the shoe and the frog, that nothing but very violent force with a hammer can remove them; in such cases, horses are sometimes led a considerable distance to some dwelling house, before the stone can be extracted; and the foot is probably bruised, or sustains a serious injury, for what might be obtained at a trifling expense, and carried with little inconvenience.

PIGEON, THE. The pigeons constitute a tribe that forms a connecting link between the passerine birds and the poultry.—They are much dispersed over the world, some of the species being found even in the arctic regions. Their principal food is grain; they drink much; and not at intervals like other birds, but by a continued

P I G E O N

draught, like the quadrupeds. During the breeding time they associate in pairs, and pay court to each other with their bills. The female lays two eggs, and the young that are produced are for the most part a male and a female. They usually breed more than once in the year; and the parent birds divide the labour of incubation by sitting alternately on the eggs.

Both the male and female assist in feeding their young. This, in most of the species with which we are acquainted, is done by means of a substance in appearance not unlike curd, and analogous to milk in quadrupeds, that is secreted in their crop. During incubation, the coats of the crop are gradually enlarged and thickened, like what happens to the udders of female quadrupeds during the time of uterine gestation. On comparing the state of the crop when the bird is not sitting, with its appearance on these occasions, the difference is found to be very remarkable. In the first case, it is thin and membranous; but when the young are about to be hatched, it becomes thicker, and takes a glandular appearance, having its internal surface very irregular.—Whatever may be the consistence of this substance when just secreted, it probably very soon coagulates into a granulated white curd; and in this form it is always found in the crop. If an old pigeon be killed just when the young ones are hatching, the crop will be found as above described, having in its cavity pieces of white curd mixed with the common food of the bird, such as barley, pease, &c.—The young pigeons are fed for a little while with this substance only: about the third day some of the common food is to be found along with it. As the pigeon grows older, the proportion of the common food is increased; so that by the time it is seven, eight, or nine days old, the secretion of the curd ceases in the old ones, and of course no more is found in the crop of the young.—It is a curious fact, that the parent pigeon has at first a power to throw up this curd without any mixture of common food; although afterwards both are thrown up in the proportion required for the young ones.*

Pigeons have a weak, slender bill, straight at the base; with a soft protuberance, in which the nostrils are situated. The legs are short, and in most of the species red; and the toes are divided to the origin.—The voice of these birds is plaintive and mournful.

The wild-pigeon.—This bird, from being the parent stock whence all the varieties of the domestic pigeon are derived, is often called the stock-dove. It is still found in many parts of our island in a wild state: forming its nest in holes of rocks, and old towers, and in the hollows of trees; but never, like the ring-dove, on the boughs.

Multitudes of wild-pigeons visit us in the winter, from their more northerly summer retreats; appearing about November, and again retiring (except a few that breed with us) in the spring. While the beech woods were suffered to cover large tracts of ground, these birds used to haunt them in myriads, frequently extending above a mile in length as they went out in a morning to feed.

* What is here termed curd, is not literally such, but is so called from its much resembling that substance in appearance. Hunter on Anim. Econ. p. 235.

PIGEON

In a state of domestication, these pigeons are rendered of very material service. They frequently breed eight or nine times in a year ; and though only two eggs are laid at a time, their increase is so rapid and prodigious, that, at the expiration of four years, the produce and descendants of a single pair may amount to the immense number of nearly fifteen thousand.

The usual way to entice pigeons to remain at a required spot, is to place what is called a salt-cat near them : this is composed of loam, old rubbish, and salt, and will so effectually, it is said, answer the purpose as to decoy even those belonging to other places ; it is on this account held illegal.

We have a singular anecdote related of the effect of music on a pigeon, by Mr. John Lockman, in some reflections concerning operas, prefixed to his musical drama of *Rosalinda*. This person being at the house of Mr. Lee, a gentleman who lived in Cheshire, and whose daughter was a fine performer on the harpsichord, he observed a pigeon, which, whenever the young lady played the song of "*Speri si*," in Handel's opera of *Admetus* (and this only), would descend from an adjacent dove house, to the room window where she sat, and listen to it apparently with the most pleasing emotions ; and when the song was finished, it always returned immediately to the dove house.

There are upwards of twenty varieties of the domestic pigeon ; and of these the carriers are the most justly celebrated. They obtained their name from the circumstance of their conveying letters and small packets from one place to another.

It is through attachment to their native place, and particularly to the spot where they have brought up their young, that they are thus rendered useful to mankind. The bird is conveyed from its home to the place whence the information is intended to be sent ; the letter is tied under its wing, and it is let loose. From the instant of its liberation, its flight is directed through the clouds, at an amazing height, to its home : by an instinct altogether inconceivable, it darts onward in a straight line to the very spot from whence it was taken ; but how it can direct its flight so exactly, will probably for ever remain unknown to us.

These birds are not now rendered of the same use as formerly, in carrying letters from governors in besieged cities to generals about to relieve them ; from princes to their subjects, with tidings of some fortunate event ; or from lovers to their mistresses with the dictates of their passion ; nor, since the executions at Tyburn have ceased, will they again be let loose the moment the fatal cart is drawn away, to notify to distant friends the departure of the unhappy criminal.

The rapidity of their flight is very wonderful. Lithgow assures us, that one of them would carry a letter from Babylon to Aleppo (which, to a man, is usually a thirty days' journey) in forty-eight hours.—To measure their speed with some degree of exactness, a gentleman some years ago, on a trifling wager, sent a carrier-pigeon from London by the coach to a friend at St. Edmund's Bury ; and along with it a note, desiring that the pigeon, two days after its arrival

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there, might be thrown up precisely when the town clock struck nine in the morning. This was accordingly done; and the pigeon arrived in London, and flew into the Bull-inn, in Bishopsgate-street, at half an hour past eleven o'clock, of the same morning, having flown seventy-two miles in two hours and a half.

The carrier-pigeon is easily distinguished from the other varieties, by a broad circle of naked white skin round the eyes, and by its dark blue or blackish colour.

The ring-dove.—These are the largest of all the British pigeons, generally weighing about twenty ounces; and may at once be distinguished by their size from all the rest. They build on the branches of trees, generally preferring those of the pine. The nest is large and open, formed principally of dried sticks; and the eggs, which may be frequently seen through the bottom of the nest, are larger than those of the domestic pigeon.

The food of this, as well as of the other species, is principally grain: but a neighbour of the Rev. Mr. White, of Selborne, shot a ring-dove as it was returning from feeding, and going to roost; and when his wife had picked and drawn it, she found its craw stuffed with the most nice and tender tops of turnips.

Hence we may see that granivorous birds, when their usual kinds of subsistence fail, can feed on the leaves of vegetables. There is indeed reason to suppose, that they would not be long healthy without these substances; for turkies, though corn fed, delight in a variety of plants, such as cabbage, lettuce, endive, &c.; and poultry pick much grass; while geese live for months together on commons by grazing alone.

Naught is useless made.

On the barren heath

The shepherd tends his flock; that daily crop

Their verdant dinner from the mossy turf

Sufficient; after them, the cackling goose,

Close-grazer, finds wherewith to ease her wants.

Attempts have frequently been made to domesticate these birds, by hatching their eggs in dove-houses under the common pigeon; but as soon as the young ones were able to fly, they always escaped to their proper haunts. Mr. Montagu was at considerable pains in endeavours of this nature; and though he so far tamed them within doors, as to have them become exceedingly troublesome, yet he never could produce a breed, either by themselves, or with the tame pigeon. Two bred up together with a male pigeon, were so tame as to eat out of the hand; but as they shewed no signs of breeding in the spring, they were, in the month of June, suffered to take their liberty, by the window of the room being left open in which they were confined. It was supposed, that the pigeon might induce them to return to their usual place of abode, either for food or to roost; but from that moment they assumed their natural habits, and nothing more was seen of them, although the pigeon remained.—This gentleman bred up a curious assemblage of birds, which lived together in per-

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fect amity: it consisted of a common pigeon, a ring-dove, a white-owl, and a sparrow-hawk; and the ring-dove was master of the whole.

About the beginning of winter, the ring-doves assemble in great flocks, and leave off cooing. The multitude thus collected during that season, is so disproportioned to those which continue here the whole year, as to render it certain that much the greater part of them quit the country in the spring. It is most probable that these go into Sweden and the adjoining countries, to breed; and return thus far southwards in autumn, from being unable to sustain the rigours of that climate in the winter months. They again begin to coo in March; soon after which those that are left among us commence their preparations for breeding.

The *passenger-pigeon* is about the size of the common pigeon. Its bill is black. Round the eyes there is a crimson mark; and the head, throat, and upper parts of the body, are ash-coloured. The sides of the neck are of a glossy variable purple. The fore part of the neck and breast are vinaceous; and the under parts are the same, but paler. The tail is tolerably long. The legs red, and the claws black.

The passenger-pigeon visits the different parts of North America, in enormous flocks. In the southern provinces their numbers depend greatly on the mildness or severity of the season; for in very mild weather, few or none of them are to be seen. Actuated by necessity, they change their situations in search of acorns, mast, and berries, which the warmer provinces yield in vast abundance. When they alight, the ground is quickly cleared of all esculent fruits; to the great injury of the hog, and other mast-eating animals. After having devoured every thing that has fallen on the surface, they form themselves into a great perpendicular column; and fly round the boughs of trees, from top to bottom, beating down the acorns with their wings; and they then, in succession, alight on the earth, and again begin to eat.

“I think (says Mr. Blackburn, in a letter to Mr. Pennant) that these are as remarkable birds as any in America. They are in vast numbers in all parts; and have been of great service, at particular times, to our garrisons, in supplying them with fresh meat, especially at the out-posts. A friend told me, that in the year in which Quebec was taken, the whole army were supplied with this subsistence, if they chose it. The way was this. Every man took his club (for they were forbid to use their firelocks), when they flew, as it was termed, in such quantities, that each person could kill as many as he wanted. They in general begin to fly soon after day-break, and continue till nine or ten o'clock; and again about three in the afternoon, and continue till five or six: but what is very remarkable, they always fly westerly. The times of flying here are in the spring, about the latter end of February or the beginning of March, and they continue every day for eight or ten days; and again in the fall, when they appear at the latter end of July, or the beginning of August. The inhabitants catch vast quantities of them in clap-nets, with stale pigeons. I have seen them brought to the market at New York by sackfuls. People in general are very fond of them, and I have heard

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many say that they think them as good as our common blue pigeon : but I cannot agree in this opinion ; the flesh tastes most like our queest, or wild-pigeon, but is better meat. Sir William Johnston told me, that at one shot, with a blunderbuss, he killed *above a hundred and twenty*.

I must remark one singular fact : that, notwithstanding the whole people of a town go out a pigeoning, as they call it, they do not, on some days, kill a single hen bird ; and, on the very next day, not a single cock (and yet both sexes always fly westerly) : and when this is the case, the people are always assured that there will be a great quantity of them that season."

They were so numerous when La Honton was in Canada, that the bishop, he says, had been compelled more than once to *exorcise* them formally, on account of the damage they committed. Many of the trees were said to have had more pigeons on them than leaves, in this migration ; and for eighteen or twenty days, it was supposed, sufficient might have been killed to supply food for a thousand men.

Mr. Weld, who very lately travelled through the States of North America, informs us, that a gentleman of the town of Niagara assured him, that once as he was embarking there on board a ship for Toronto, a flight of them was observed coming from that quarter ; that as he sailed over the lake Ontario to Toronto, forty miles distant from Niagara, pigeons were seen flying over-head the whole way in a contrary direction to that in which the vessel proceeded ; and that on his arriving at the place of his destination, the birds were still observed coming down from the north in as large bodies as had been noticed at any time during the whole voyage. Supposing, therefore, that the pigeons moved no faster than the vessel, the flight, according to this gentleman's account, must have extended at least eighty miles.

During their migrations, these pigeons are very fat. It is a singular fact, that Mr. St. John found in the craw of one of them some undigested rice, when the nearest rice-fields were at least 560 miles from his habitation. He naturally concluded that either they must fly with the celerity of the wind, or else digestion must be in a great measure suspended during their flight.

The Indians often watch the roosting places of these birds ; and knocking them on the head in the night, bring them away by thousands. They preserve the oil, or fat ; which they use instead of butter. There was formerly scarcely any little Indian town in the interior parts of Carolina, where a hundred gallons of this oil might not at any time be purchased.

By the colonists they are generally caught in a net extended on the ground ; to which they are allured by tame pigeons of their own species, that are blinded, and fastened to a long string. The short flights and repeated calls of the shackled birds, never fail either to excite their curiosity, or bring some of them down to attempt their relief ; when they are immediately inclosed. Every farmer has a tamed pigeon in a cage at his door all the year round, to be ready against the season of their flight.



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M. du Pratz, when he was in America, placed under their roosting-trees vessels filled with flaming sulphur, the fumes of which brought them to the ground in immense numbers.

In 1803, a trial to ascertain the velocity of the pigeon's flight was made by a gentleman near Manchester Square, who sent a pigeon to Salisbury, with directions for its being released, with a billet round its neck, precisely at twelve o'clock the day following. The bird arrived at seven minutes past three, a distance of eighty-three miles in three hours and seven minutes, or at the rate of twenty-six miles per hour.

The recent flights of pigeons from London to Antwerp must be fresh in the recollection of the reader ; but as far as relates to their velocity, flights of this description afford no criterion, as a considerable period must elapse, on throwing up the pigeon, before the bird can ascertain its direct course. Hence it may reasonably be concluded, that the velocity of this bird's flight is much greater than it is generally supposed ; or, at least, than has been hitherto stated.

The management of pigeons has been recently and fully treated of. After recommending the harvest flight of pigeons as the most proper for the purpose of stock, from being the strongest to withstand the winter season, the author of the "Experienced Farmer" gives the following directions:—"In regard to feeding them, it is only deemed needful between seed-time and harvest, when it should be done by three or four o'clock in the morning ; if fed much later they will keep hovering about home, and be prevented from taking their necessary exercise. If fed the year round, pigeons will not breed nearly so well as if forced to seek their own food ; for they pick up in fields what is pleasant and healthy to them, and from the beginning of harvest to the end of seed-time they find plenty. They may be fed with tares, grain, or seeds of any kind. Be cautious of not letting the first flight fly to increase the stock, but let every one of them be taken ; as these will come in what is called benting-time, that is, between seed-time and harvest. It is then that pigeons are the scarcest ; and many of the young ones would pine to death through weakness during that period. At the latter end of every flight, care should be taken to destroy all those eggs that are not laid in a proper time. The proper time for the spring flight is in April and May. After the harvest flight, cold weather comes on, which injures the old pigeon much if she sits late ; and the young will be good for nothing if hatched. It is very necessary to pay attention to cleanliness in the management of a dove-cote. Before breeding time, the holes ought to be carefully examined and cleaned ; for if any of the young die in the holes in summer, they become putrid, and emit a disagreeable and unwholesome stench, which is very injurious. Pigeons are tenacious of their nests, (as appears from the conduct of the wood-pigeon, which will breed for years in the same tree) and the female forsakes it with regret ; but, unable to endure the filth and stench of her dead offspring, she is obliged to quit the eggs she laid for a second brood, and the prime of the season is lost.

"Every summer, immediately after the first flight, the nests

should be all cleaned out, and the dung totally taken away : but remember to do this business early in the morning. The remaining eggs ought also to be destroyed, and a perfectly clear habitation made for the harvest flight. It is advised never to go into a dove-cote later than mid day, but as soon in the morning as convenient. Whatever repairs are necessary, either to the building or to the nests, should be done before noon : for if you disturb the pigeons in the afternoon, they will not rest contentedly the whole of the night, and the greatest part, perhaps, will not enter the cote until the next day ; and, if in breeding-time, either a number of eggs may be spoiled, or several young ones starved to death."

Pigeons are supposed to be more productive from the breeds being crossed ; in proof of which a few tame pigeons were put into a dove-cote, and the consequence was, that an earlier and more numerous hatch of young was produced than in any of the neighbouring cotes.

PIGEON SHOOTING. See SHOOTING.

PIKE, THE. In the whole of the pike tribe, the head is somewhat flat, and the upper jaw shorter than the other. The gill-membrane has from seven to twelve rays. The body is long, slender, compressed at the sides, and covered with hard scales. The dorsal fin is situated near the tail, and generally opposite to the anal fin.

These fish are found in considerable plenty in most of the lakes in Europe, Lapland, and the northern parts of Persia, where they sometimes measure upwards of eight feet in length.

There is scarcely any fish of its size in the world that in voracity can equal the pike. One of them has been known to choak itself in attempting to swallow another of its own species that proved too large a morsel : and it has been well authenticated that, in the Marquis of Stafford's canal at Trentham, a pike seized the head of a swan as she was feeding under water, and gorged so much of it as killed them both.

"I have been assured (says Walton) by my friend, Mr. Seagrave, who keeps tame otters, that he has known a pike, in extreme hunger, fight with one of his otters for a carp that the otter had caught, and was then bringing out of the water."

Boulker, in his *Art of Angling*, says, that his father caught a pike that was an ell long, and weighed thirty-five pounds, which he presented to Lord Cholmondeley. His Lordship directed it to be put into a canal in his garden, which at that time contained a great quantity of fish. Twelve months afterwards the

water was drawn off, and it was discovered that the pike had devoured all the fish except a single large carp, that weighed between nine and ten pounds ; and even this had been bitten in several places. The pike was again put in, and an entire fresh stock of fish for him to feed on ; all these he devoured in less than a year. Several times he was observed by workmen, who were standing near, to draw ducks and other water-fowl under water. Crows were shot and thrown in, which he took in the presence of the men. From this time the slaughtermen had orders to feed him with the garbage of the slaughter-house ; but being afterwards neglected, he died, as it is supposed, from want of food.

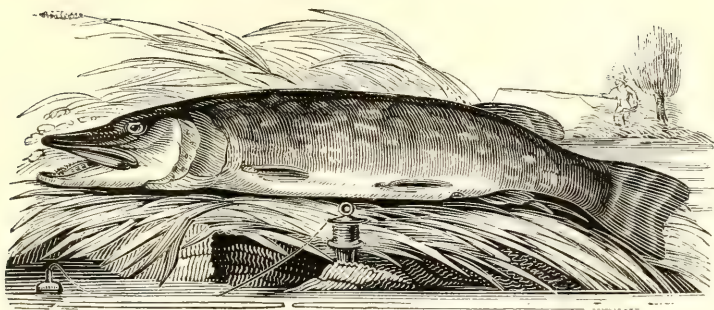
In December, 1765, a pike was caught in the river Ouse that weighed upwards of twenty-eight pounds, and was sold for a guinea. When it was opened, a watch, with a black ribband and two seals, were found in its body. These, it was afterwards discovered, had belonged to a gentleman's servant, who had been drowned in the river about a month before.

Gesner relates, that a famished pike in the Rhone seized on the lips of a mule, and was, in consequence, dragged out of the water ; and that people, while washing their legs, had often been bitten by these voracious creatures.

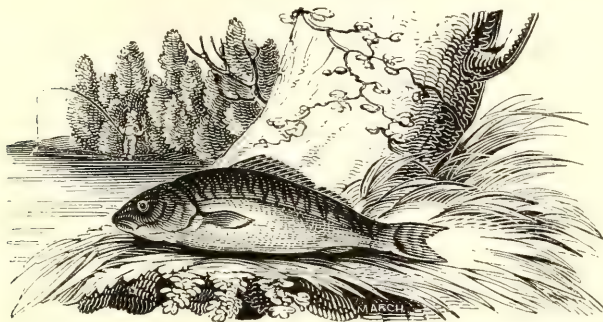
The largest pike that is supposed to have been ever seen in this country, was one caught on the draining of a pool at Lillishall lime-works, near Newport, that had not been fished in the memory of man : it weighed above 170 pounds.

If the accounts of different writers on the subject are to be credited, the lon-

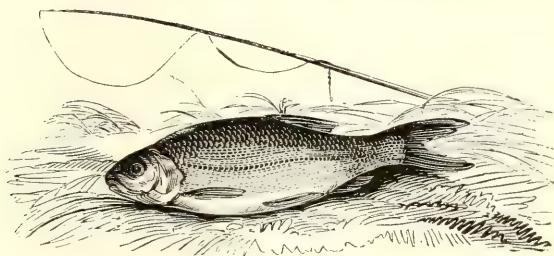
FISH. *Plate IV.*



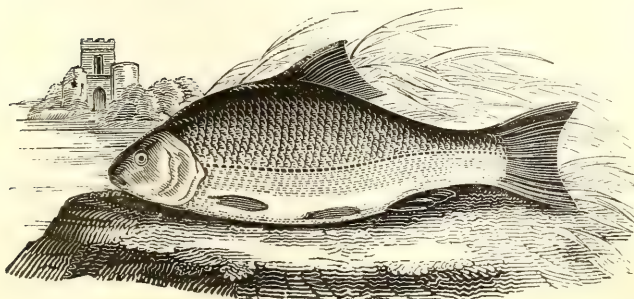
PIKE, or JACK, *p.* 630.



POPE, or RUFF, *p.* 751.



MINNOW, *p.* 727.



RUD, *p.* 750.

gevity of the pike is very remarkable. Gesner goes so far as to mention a pike whose age was ascertained to be 267 years.

Pike spawn in March or April. When they are in high season, their colours are very fine, being green, spotted with bright yellow, and having the gills of a most vivid red. When out of season, the green changes to grey, and the yellow spots become pale. The teeth are very sharp, and are disposed in the upper jaw, on both sides of the lower, on the roof of the mouth, and often on the tongue. They are altogether solitary fish, never congregating like some of the other tribes.

Ireland is remarkable for abundance of pike, and for the size to which they arrive in its waters; in the river Shannon and in Lough Corrib they have been found nearly seventy pounds weight.

Small fish shew a similar uneasiness at the presence of the pike, as the little birds do at the sight of the hawk or owl; and when they lie dormant near the surface, (as they frequently do in sultry weather) the lesser fish swim around in vast numbers, and with evident anxiety. Pike are often taken, in the hottest part of the days in summer, while they are thus asleep, by a noose of wire, fixed to a strong pole about four yards long; by which the wire with great slowness is conducted over the pike's head and gill fins, and then hoisted with a jerk to land.

Pike are also frequently shot while thus basking themselves: the marksman aims directly under them: from the deception there is in the water, and its causing the shot to rise much when fired into, he would otherwise miss his object.

Pike love a still, shady, unfrequented water, with a sandy, clayey, or chalky bottom, (arriving at a larger size in pools than rivers) and from May to the beginning of October, they usually place themselves amongst or near flags, bulrushes, and water-docks, and particularly under the *ranunculus aquaticus* when in flower, and which floats on the surface; they will sometimes be found in the termination of sharp currents: from March to the end of May they resort to back waters that have direct communication with the main stream: as winter approaches they retire into the deeps, under clay banks, bushes impending over the water, stumps and roots of trees, piles of bridges, and flood-gates. They spawn in March or April, according to the coldness or warmth of the weather, quitting the rivers for the

creeks and ditches communicating with them, and there dropping their ova in the grass and reeds; in ponds they choose the weeds upon the shallows for depositing it; ducks and other wild fowl eagerly devour the spawn, and by them it is transported to other waters. The appearance of the pike in ponds, where none were ever put, has been deemed as extraordinary as its asserted longevity; it is however easily accounted for, upon the well-known principles of the generation of fishes: if a heron has devoured their ova, and afterwards ejected them, while feeding in one of these ponds, it is highly probable that they may be produced from this original, in the same way as the seeds of plants are known to be disseminated.

Pike are in season from May to February, (the female fish are to be preferred;) are bold biters, afford the angler good sport, and may be fished for all the year; but the best months (especially for trolling) are February, before the weeds shoot, and October, when they are rotted; the latter is to be preferred, as the pike are fattened by their feed during the summer, and from the lowness of the waters, their harbours are easily discovered.

For trolling, the rod should be twelve or fourteen feet long; but a strong top for this fishing, with a ring at the end for the line to run through, may be fitted to a fly or general rod; there should be one ring upon each joint to conduct the line, which is better than a greater number, (and these rings must be set on straight, that it may run freely, so that no sudden check after the bait is taken prevent the pike from gorging it;) the line should be of silk, with a swivel at the end to receive the armed wire or gimp, and at least thirty yards long, wound upon a winch or reel, fixed to the butt end of the rod, hooks for trolling, called dead gorges, and other sorts for trolling, snap, and trimmer, and fishing needles, are to be bought at every shop where fishing-tackle is sold; in the choice of the first, let them not be too large, nor their temper injured by the lead on the shanks, nor the points stand too proud; and, although usually sold on wire, it is recommended to cut off the wire about an inch from the lead, and with double silk, well waxed, fasten about a foot of good gimp to the wire, with a noose at the other end of the gimp, large enough to admit the bait to pass through, to hang it upon the line. The best baits are gudgeons or dace, of a middling size; put the baiting-needle in at the mouth,

and out at the middle of the tail, drawing the gimp and hook after it, fixing the point of the hook near the eye of the fish; tie the tail to the gimp, which will not only keep it in a proper position, but prevent the tail from catching against weeds and roots in the water: thus baited, the hook is to be fastened to the line, and dropt gently in the water, near the sides of the river, across the water, or where it is likely pike resort; keep the bait in constant motion, sometimes letting it sink near the bottom, and gradually raising it; the angler need not make more than two or three trials in a place, for if a pike be there, he will within that time bite, if he means to do so; when the bait is taken, if at a depth too great to see, it will easily be ascertained by the line being drawn tight, and by some resistance: let the pike have what line he chooses, it will be soon known when he has reached his harbour by his not drawing more; allow from five to ten minutes, for his gorging the bait; wind up the line gently until the pike is seen, (which he will permit, though he has not gorged :) should the bait be across his mouth, give more time; but if he has swallowed, manage him with a gentle hand, keeping him however from roots and stumps, which he will try to fasten the line upon; in clear water veer out line until he is sufficiently tired, and a landing net can be used; but by no means, however apparently exhausted, attempt to lift him out with the rod and line only; for the moment he quits the water, he will open his mouth, and from his own weight, tear the hook from his stomach; and the fish will be lost to the angler, although it must inevitably perish.

In trolling, the bait should never be thrown too far: in small rivers the opposite bank may be fished with ease, and the violence of its fall upon the water, in extensive throws, soon spoils the bait, by rubbing off its scales, and alarms the pike, instead of enticing him.

The bead hook is used by putting the lead into the mouth of the live bait and sewing it up; the fish will live some time, and, notwithstanding the lead, will swim with the support he receives from the line, with nearly the same ease as if at liberty: this is the most successful way of tempting the pike.

Pike are to be allured by a large bait, but a small one is more certain to take them: never suffer weeds to hang upon the hook or bait when recast into the water, and which cannot touch the sur-

face too softly. Always prefer a rough wind, and when the stream is clear, for trolling: pike never bite in white water after rain, &c. If a pike goes slowly up the stream after taking the bait, it is said to be a signal of a good fish.

"I saw a very large fish (says Colonel Thornton) come at me, and, collecting my line, I felt I had him fairly hooked; but I feared he had run himself tight round some root, his weight seemed so dead: we rowed up, therefore, to the spot, when he soon convinced me he was at liberty, by running me so far into the lake, that I had not one inch of line more to give him. The servants, foreseeing the consequences of my situation, rowed with great expedition towards the fish, which now rose about seventy yards from us, an absolute wonder! I relied on my tackle, which I knew was in every respect excellent, as I had, in consequence of the large pike, killed the day before, put on hooks, and gimp, adjusted with great care; a precaution which would have been thought superfluous in London, as it certainly was for most lakes, though, here, barely equal to my fish. After playing him for some time, I gave the rod to Captain Waller, that he might have the honour of landing him; for I thought him quite exhausted, when to our surprise, we were again constrained to follow the monster nearly across this great lake, having the wind, too, much against us. The whole party were now in high blood, and the delightful Ville de Paris quite manageable; frequently he flew out of the water to such a height, that though I knew the uncommon strength of my tackle, I dreaded losing such an extraordinary fish, and the anxiety of our little crew was equal to mine. After about an hour and a quarter's play, however, we thought we might safely attempt to land him, which was done in the following manner: Newmarket, a lad so called from the place of his nativity, who had now come to assist, I ordered, with another servant, to strip and wade in as far as possible; which they readily did. In the mean time I took the landing net, while Captain Waller judiciously ascending the hill above, drew him gently towards us. He approached the shore very quietly, and we thought him quite safe, when, seeing himself surrounded by his enemies, he in an instant made a last desperate effort, shot into the deep again, and, in the exertion, threw one of the

men on his back. His immense size was now very apparent; we proceeded with all due caution, and, being once more drawn towards land, I tried to get his head into the net, upon effecting which, the servants were ordered to seize his tail, and slide him on shore: I took all imaginable pains to accomplish this, but in vain, and I began to think myself strangely awkward, when at length, having got his snout in, I discovered that the hoop of the net, though adapted to very large pike, would admit no more than that part. He was, however, completely spent, and, in a few moments, we landed him, a perfect monster! He was stabbed by my directions in the spinal marrow, with a large knife, which appeared to be the most humane manner of killing him, and I then ordered all the signals, with the sky-scrapers, to be hoisted; and the whoop re-echoed through the whole range of the Grampians. On opening his jaws, to endeavour to take the hooks from him, which were both fast in his gorge, so dreadful a forest of teeth, or tushes, I think I never beheld: if I had not had a double link of gimp with two swivels, the depth between his stomach and mouth would have made the former quite useless. His measurement, accurately taken, was five feet four inches, from eye to fork.

On examining him attentively, I perceived that a very large bag hung deep below his belly, and, thinking it was lower than usual with other pike, I concluded that this had been deeply fed but a short time before he was taken. After exhibiting him, therefore, to several gentlemen, I ordered that my housekeeper, on whom I could depend, should have him carefully opened the next day, and the contents of his stomach be reserved for inspection; and now ordering the servants to proceed with their burden, we returned to Avemore, drank tea, and afterwards went on to the Raits, where we produced our monster for inspection, to the no small gratification of the spectators, whose curiosity had been strongly excited to view a fish of such magnitude.

Agreeable to the orders of the preceding day, Mrs. C. opened the pike, and sent to us the contents of his stomach, which, to our surprise, consisted of part of another pike half digested. The tumour, or bag, arose from his having, no doubt many years since, gorged a hook, which seemed to us better calculated for

sea than for fresh-water fishing. It was wonderfully honey-combed, but free from rust, so that I cannot doubt of its having been at least ten years in his belly. His head and back bone I ordered to be preserved in the best manner I could devise, and the rest to be salted down.

The weight of this fish, judging by the trones we had with us, which would only weigh twenty-nine pounds, made us, according to our best opinions, estimate him at between forty-seven and forty-eight pounds. I had before this seen pike of thirty-six pounds, and have had them at Thornville of above thirty; but the addition of seventeen pounds and a half made this quite a different fish. There may be larger pike, but I cannot readily credit the accounts of such until I receive more authentic information." This extraordinary fish was taken in Loch Alva, in the Highlands of Scotland.

The next pike in size to the foregoing, taken by the troll, was in December, 1792, by Mr. Bint, in the pool at Packington, (the Earl of Aylesford's) being from eye to fork two feet eleven, full length three feet ten and a half; circumference one foot ten inches, and weighed thirty-four pounds and three quarters.

In 1804 a pike was taken out of the same water, with a carp, that weighed ten pounds, stuck in his throat, and which had choaked him. The pike when empty was thirty pounds weight.

Mr. Wilson caught a pike by trolling in the Driffield Canal, near Brigham, which weighed twenty-eight pounds, measured two feet round the belly, and three feet five inches in length; and what was singular, five pounds of solid fat were taken out of his inside.

Sir Cecil Wray's pike, caught in June, 1799, at the draining off the water from the lake at his seat at Summer Castle, in Lincolnshire, weighed forty-seven pounds gross, thirty-six pounds, after being cleaned, of eatable meat; was forty-eight and a half inches long, and two feet two inches in circumference: this fish must have got into the lake when very small, and had acquired this enormous size in twenty-two years; for at that time the lake was laid dry. Sir Cecil computes that he consumed three fish per diem, progressively larger as his own size increased, and that he at least destroyed 24,000; all of which, in the latter years of his growth, must have been valuable fish; so that the cost of his support exceeded, by some hundred times, his own

value. A river pike grows fast until he arrives at twenty four inches; he then ceases to extend so rapidly in length; (for, in good water, with plenty of feed, a pike spawned in March will, by the March following, be grown from sixteen to eighteen inches,) and proportionably thickens; afterwards he will be much longer arriving at his full bigness, (which is about forty-six inches,) from the length of thirty, than he was in acquiring the first thirty inches.

In May, 1706, Mr. Bishop of Godstow, between Weir and Wytham Brook, landed the largest pike ever remembered to be taken in the Isis; it was four feet two inches long, two feet ten in girth, and, after being disgorged of a barbel nearly six, and a chub upwards of three, pounds, weighed thirty-one pounds and a half.

In June, 1796, a male pike was caught in Exton Park pond, (Lord Gainsborough's,) the length forty-two and a half from eye to fork, and from nose to tail forty-nine inches; the girth twenty-eight inches, and weighed thirty-seven pounds and a quarter. Neither this, nor the fish taken in the Isis, was so well grown as Sir Cecil Wray's.

In 1797 a pike, weighing near forty pounds, and measuring in length three feet six, and in girth two feet, was caught in a pond at Totteridge, in Hertfordshire; a tench of four pounds, and four pounds and a half of solid fat, were taken from his inside.

In Munden Hall Fleet, a pike was found that had been killed by a very long frost; in its putrid state it weighed forty-two pounds, but had wasted considerably; was three feet six long, and two feet nine inches in girth; the teeth were nearly as long, though not so stout, as those of a greyhound: the head of this fish was dried with the skin on, and long preserved at the hall as a great curiosity, not only on account of its immense size, but from a peculiarity in the lower jaw, which had bristles like those growing on the breast of a turkey-cock, proceeding from the under part of it. This head was given to the Rev. Mr. Kay, of South Bemfleet, in Essex, by Mr. Lugar; and from Mr. K's house some friendly collector of natural curiosities took the opportunity of marching off with it, during a very severe illness with which that gentleman was afflicted in the year 1792*.

In some places pike are taken by what is termed dipping; the hook used is a large sized gorge hook, very slightly leaded on the shank, and baited as in trolling, only the mouth of the fish is to be sewed up, and the back fin cut away, and then looped to the swivel; the line is let out from the reel to a convenient length, and the bait is dropped in any small openings where the water is not very deep, and overspread with docks and weeds. The fish hanging with his head downwards will, when gently moved, (and all baits, especially dead ones, should be kept in constant motion,) shoot and play about among the weeds so naturally, that the pike will be eager in taking it this way, even from the surface: when the bait is seized, the line is to be slackened, and the pike allowed line to run; in a short time it will be perceived to shake, which is a signal to strike; when hooked, he must be cautiously managed, winding up the line gradually: in getting the pike through the weeds, endeavour to keep his nose above them, and use the landing-net in taking him from the water. In this method the baits must be as fresh as possible.

For snap-fishing, (which is best used in March, the pike being then very shy of gorging, although with seeming eagerness they seize the bait,) should the rod be purposely made for it, the length should be about twelve feet; if a common rod is employed, the top should be stouter than that used in trolling, with a strong loop to fasten the line upon, which must be a foot shorter than the rod: for the live snap, no hook is so proper as the double spring hook: to bait it, nothing more is requisite than to hang the fish to the small hook under the back fin, which

Barcomb Mills, a dead pike of an extraordinary size, jammed between a willow stump and the bank. In length it measured, from eye to fork, four feet, was one foot thick across the back, and weighed, in its wasted state, forty pounds. This confined situation of the fish is attributed to the rapidity of the current forcing it into a position from which it could not after extricate itself, and consequently there remained till it was literally starved to death.

At Shardeloes, the seat of Mr. Drake, is a good painting by Francis Barlow, of a pike caught in the lake before the house, which weighed thirty-four pounds.

* In January, 1803, the gamekeeper of Mr. Shiffner, of Comb Place, near Lewes, in Sussex, discovered in the Lewes river,

may be done with so little hurt to the fish that it will live for many hours. Gudgeons (which, in all modes of pike-fishing, are superior to every other) and dace are the best baits; they must be kept alive in a tin kettle, with holes in the lid, and which in hot weather should be placed in the water.

The other live snap-hook is baited by the small hook being thrust through the fish beneath the back fin; and some use a piece of silk or thread doubled, hung on the point of the small hook, and brought under the belly of the bait, and tied on the other side to the shanks of the large hooks; care and expedition are required in doing this, otherwise the bait will be so injured as to be incapable of swimming briskly in the water: a cork float, the size of a common burgamot pear, with a small pistol bullet or two, not only to poise, but to keep, the bait at a proper depth, which is from two to three feet. If a pike be near where the bait is put in, it will come to the surface, or increase the quickness of its motion to avoid him; these signs will put the angler on his guard: when the float is drawn under, allow it to be sunk considerably before striking, which, in all snap-fishing, should be with a smart stroke, and directly contrary to the course the pike appears to take; the line must be kept tight, and the landing net should be used, as the throwing out a large pike by force will certainly strain the sockets of the rod.

Some use only one large long-shanked hook, whipped to gimp, with a swivel at the upper end; the hook baited with a gudgeon under the back fin, or through the upper lip, with a float as above, that will swim the gudgeon; fish at mid-water, and allow a minute after the float is sunk before striking: by this method perch may be taken, if the bait be a minnow or very small gudgeon.

A variety of hooks are used for the dead snap; and this mode of catching pike is well adapted to both shallow and deep waters, to the still rapid parts of the river; will take pike at all seasons of the year, supposing the water and weather favourable; and it will be no trifling recommendation that the idea of cruelty, which the use of a live fish naturally impresses, is, by this substitute, completely removed. The rod should be longer than that for trolliug; the line fine, strong, and twenty yards in length; the hook by some most preferred is like that for a common live snap; the length of the

gimp, on which the hook is tied, should be regulated by the size of the bait, and should be rather longer than the distance from the back fin to the mouth; that the looped end may be hung on a strong swivel, tied neatly to about a foot more of gimp, with a noose at the other end, to hang it upon the line, fastening a piece of lead, of the shape of a barley-corn, and weighing about an ounce, with a hole through it, about two inches above the swivel. The bait should be a middle sized dace: insert the baiting needle close behind the back fin, letting it come out of the mouth; draw the gimp to which the hook is tied after it; the short hook must stand with the point upright behind the back fin; the others will consequently be on each side; then hang it upon the swivel, and try if it will spin: if it does not, move the bait a little to the right or left, which may be done without moving it from the hook: the whole success depends on its quick turning when drawn against the stream; and when it does, it appears like a fish unable to escape, and becomes too tempting a morsel for the pike to resist: this method will not only enable the angler to fish a greater extent of water than the others, but is more certain to secure the pike. The large ones, though bold in seizing the bait, are very cautious in gorging it: most trollers have experienced, that, after running out a considerable length of line, the bait has been mumbled to pieces and deserted; a disappointment here remedied, for a pike has but to seize the bait, and he is caught.

At both troll and snap, some persons have two or more swivels to their line; by which means its twisting is prevented, the bait plays more freely, and to the dead bait in rivers it certainly is an improvement: in ponds or still waters one will answer the purpose.

Another way of taking the pike is with an artificial fly: many have asserted that they are not to be caught at all with a fly, but, as a convincing proof to the contrary, a pike, the largest taken by a line, or perhaps ever known in this country, was caught in Loch Ken, near New Galloway, in Scotland, with a common fly, made of the peacock feather; it weighed seventy-two pounds; the skeleton of the head is at Kenmore Castle; the jaw at the top is that of a pike, weighing twenty-five pounds: a scale is annexed by which the respective proportions of the two may be ascertained, and which will

convey some idea of the largest pike ever seen in Great Britain.

The pike fly must be made upon a double hook, fastened to a good link of gimp, and composed of very gaudy materials ; such as pheasant's, peacock's, or mallard's feathers ; the brown and softest part of bear's fur ; the reddish part of that of a squirrel, with some yellow mohair for the body. The head is formed of a little fur, some gold twist, and two small black or blue beads for the eye ; the body must be framed rough, full, and round ; the wings not parted, but to stand upright on the back, and some smaller feathers continued thence all down the back, to the end of the tail ; so that, when finished, they may be left a little longer than the hook, and the whole to be about the size of a wren. A fly thus made will often take pike, when other baits are of no avail, especially in dark windy days ; the fly must be moved quick when in the water, and kept on the surface if possible. Several sorts of these flies are to be had at all the fishing-tackle shops.

Pike are also taken with a live bait, fixed to a certain place, termed a ledger bait : if a fish is to be used, the hook is to be run through the upper lip or back fin ; if a frog (of which the yellowest are the best,) the arming wire is to be put in at the mouth, and out at the gill, and tie the leg above the upper joint to the wire ; fasten the wire to a strong line, about twelve or fourteen yards long ; the other end being made fast to a stake or stump of a tree, a forked stick is to be placed near the surface, through which the line is to pass, and suspend the bait about a yard in the water, by a notch made in the fork ; but which, when the bait is taken, will easily slip out ; but the best way is to have a wheel, or an iron spindle, to stick into the ground.

Huxing pike is, with large bladders, blown up and tied close ; at the mouth of each fasten a line, (longer or shorter according to the water's depth,) with an armed hook baited ; launch them with the advantage of the wind to move up and down the pool : a boat will be necessary in this diversion.

Huxing pike is also done by fixing an armed hook baited, at such a length as to swim about mid-water, to the leg of a goose or duck, and then driving the birds into the water. It was thus formerly practised in the Loch of Monteith, in Scotland, which abounds with very large perch and pike. "Upon these islands a

number of geese were collected by the farmers, who occupied the surrounding banks of the loch : after baited lines of two or three feet long had been tied to the legs of their geese, they were driven into the water ; steering naturally homewards, in different directions, the baits were soon swallowed : a violent and often tedious struggle ensued ; in which, however, the geese at length prevailed, though they were frequently much exhausted before they reached the shore." This method has not been so long relinquished but there are old persons upon the spot who were active promoters of the amusement.

Trimmers of two sorts may be described, the one is made of flat cork, or any light wood, painted, to be seven or eight inches diameter, turned round with a groove in the edge, large enough to receive a fine whipcord or silk line, twelve or fourteen yards, or at least five yards longer than the depth of the water : a small peg, two inches long, is fixed in the centre, with the end slit ; and a small double hook fixed to a brass-wire link is to be used. Insert the baiting needle under the side-fin of the bait, (for which large gudgeons are superior to all others,) and keep it just within the skin of the side ; bring it out beyond the back fin, drawing the wire after it, and the hook, when drawn home, will be partly covered by the side fin. This method, performed carefully, will preserve the fish alive for many hours longer than any other ; one end of the line is of course fixed to the cork, the other to the loop in the wire ; the line is then slightly put into the slit of the peg, to keep the bait at a proper depth, (from three to four feet, which is more likely to attract the pike's notice than if it laid deeper, or nearer the surface,) and to prevent its untwisting the line out of the groove. The trimmer should always be started on the windward side of the pond, and the rougher the water the better sport ; if not seized in one trip, it must be taken up and re-started from the windward side again.

The other trimmers are also of cork, and are to be baited and used as above ; their form is adapted to go easily through weeds when taken by the pike ; after the line is run off, they will follow in the shape of a wedge, and will not long be kept from appearing on the surface in the weediest places : a hole is burnt through one corner of the cork, by which, with a cord, it may be made stationary to the

side of any water; and which method is sometimes preferred where a boat cannot be readily commanded. No species of fishing does more execution than this: in windy weather, at all seasons of the year, and both day and night, the trimmer presents itself as the most deadly foe the pike can encounter.

Pike, in clear water and a gentle gale, from the middle of summer to the latter end of autumn, bite best about three in the afternoon; in the winter, during the whole day; and in the spring, most eagerly in the morn, and late at eve.

PILOT. There have been three horses of this name; two of which were excellent racers, and esteemed equal, as plate horses, to any of their time. The first was bred by Sir Charles Bunbury; foaled in 1762; got by Snap, dam by Cade, grand-dam by Crab, out of Lord Portmore's Abigail. The second was bred by Sir H. Harpur; foaled in 1770; got by Dainty Davy, dam by Blanck, grand-dam (Dizzy) by the famous and original Driver. The third was bred by the late Counsellor Lade; foaled in 1782, and got by the above, dam by Marske, grand-dam by Regulus. The two last won a great number of fifty-pound plates annually for several years in succession, and afterwards proved very excellent country stallions.

PINCHING. In jockeyship, a term used to express a method of trying a horse's mettle, or vigour, and of shewing him off to a purchaser when the creature is on sale. Thus, when the rider is on his back, he makes him stand still, and keeping him fast with the bridle-hand, he applies the spurs to the hair of the horse's sides. If the horse is impatient under this, and draws himself up, and wants to go forward, it is a sign of mettle. But the purchaser ought to try this himself on the horse's back; for the jockeys have the art of making the duller horse seem to have mettle in these trials. The purchaser must also distinguish between the restlessness of the horse, under this treatment, that arises from vigour, and that which arises from the horse's being ticklish, and which goes off immediately.

PINTAIL, THE. This bird is less than the wild duck; its length is twenty-eight inches, breadth thirty-eight, and its weight twenty-four ounces.

The form of the pintail is slender, and the neck long; bill long and black, on the sides blueish; the head, for an inch of the neck before, rusty purplish brown;

nape dusky; forepart and sides of the neck white, a little mottled with dusky, the white rising upwards on each side at the back part like ribbands; part of the neck, and back, greyish white, finely barred with black; sides of the body the same, but paler; scapulars black, long, pointed, and margined with very pale cream-colour; wings pale dusky brown; across them, first a pale rufous bar, then a broad deep copper-coloured one, edged with black, and below this is a narrow one of white; the two middle tail feathers are black, and more than three inches longer than the rest, and end in a point; the exterior feathers of the tail are ash-coloured; the under parts of the body are white; vent black, the sides of it white; legs and feet small and lead-coloured.

The female is smaller; head and neck dusky, minutely streaked with brown, spotted with black; tail as in the male, but the two middle feathers not so far elongated.

This species is pretty common during winter in England, especially in severe weather, when it is very fat; the flesh is superior in its delicate flavour to any other wild fowl. In the month of February only these birds are found in great abundance in Connaught, in Ireland. Upon the continent, in the northern parts of which it breeds, it is extremely numerous. It is abundant at the Lake Baikal, in Asia, and is often seen in large flocks on the sea-coasts of China, where it is caught in snares. In America it is not uncommon, being plentiful at New York, where it is called blue-bill; from thence it is found as far north as Hudson's Bay, where it is supposed to breed.

PISTE. In the manege, the tread or track that a horse makes upon the ground he goes over. The language is, "This horseman observes the piste, and makes it his business to follow the tread;" that is, he follows his ground regularly, without enlarging or narrowing, without traversing or entangling; such a horse "works well upon two treads;" he works well with one piste.

PLANTED. A term used of a horse. He is said to be well planted when he stands equally firm on all his legs, and not with one advanced before the other. His legs should be wider above than below, that is, the distance between his feet should be less than between his fore thighs, at that part next to the shoulders; the knees ought not to be too close, but the whole leg should descend in a straight

line to the very pastern-joint, and the feet should be turned neither out nor in, the pastern being placed about two fingers breadth more backwards than the coronet. As for his make behind, his hams should not be too close, and the instep, which is betwixt the hock and the pastern-joint, should stand perpendicular to the ground.

PLAY OR PAY. A description of bet so made. Whether the subject of such bet be man or horse; the object of a race, or boxing match; either party being present at the time and place appointed, ready to perform their part of the engagement previously entered into; the other not appearing, or appearing and then and there refusing to enter into the contest, upon the event of which the article or bet was originally formed, can lay no claim whatever to the stakes deposited; and the holder stands justified in handing such stakes over to the winner, having sufficient evidence in justification on his own part, to prove that it was *bona fide* a "play or pay" bet.—Or, supposing a bet to be made upon a horse which happens not to start, the person who backed the said horse must pay.

PLAY OR PAY. The name of a horse of much racing celebrity, the property of Mr. Durand. He was bred by Mr. Parker, and got by Ulysses out of Tiffany's dam. In 1794, at three years old (in the name of Mars) he won 50l. at Epsom, beating six others. At Stockbridge, a sweepstakes of 10gs. each, nine subscribers. At Winchester, he walked over the course for a sweepstakes of 20gs. each, eight subscribers. In 1795, when four years old, he beat Mr. Turner's Tim Tartlet, two miles for 200gs. The next day he beat Mr. Cauty's Alderman, two miles, for 50gs. He won also 50l. at Guildford; a sweepstakes of 15gs. each at Stockbridge, seven subscribers: the next day, a sweepstakes of 10gs. each, six subscribers. At Winchester, a sweepstakes of 10gs. each, eight subscribers. At Egham, he walked over for a sweepstakes of 10gs. each, five subscribers. The next day, he won a 50l. plate, beating Pandolpho and Serpent. In 1796, when five years old, he won the Craven stakes, of 10gs. each, at Newmarket, beating eleven others: 50l. at Ascot Heath. In 1797, then six years old, he won 50l. at Epsom, beating five others: 50l. at Lewes, beating Gohanna and Keren-happuch: 50l. at Abingdon, beating Keren-happuch, Paroquet, and Roland. In con-

sequence of having been so hard run for four years in succession, he started seven times in 1798 without once winning. In 1799, he won 50l. at Epsom, beating Yeoman and Midnight: 50l. at Guildford, beating Mr. Lade's David, and two others: and 50l. at Egham, beating Lord G. Cavendish's horse by Jupiter: after which, he was purchased by Mr. Dashwood, in whose possession, at nine years old, in 1800, he beat Mr. Whaley's Post Boy, four miles, over Ascot, for 100gs. and walked over at Egham for a sweepstakes of 20gs. each, three subscribers.

PLEURISY, PERIPNEUMONY, OR INFLAMMATION OF THE LUNGS is a common, and one of the most dangerous disorders that can happen to a horse; inasmuch, that if nothing has been done in this malady, it is hardly possible to save his life after three days have elapsed. The disorder once excited, various effects will be produced, according to the diversity of the parts affected: for inflammation of the lungs inflames the contiguous extremities of the pulmonary artery. When these are inflamed, the blood becomes stagnant, the vessels are distended, the thinnest part of the fluids is expressed, as it were by transudation, and the thicker parts are accumulated; and all the blood, as yet capable of circulation, is collected between the right ventricle of the heart, and the extremities of the pulmonary arteries. Hence the lungs become oppressed, incapable of expanding; and, after death, the right ventricle of the heart is found to have been inflamed; and, on some occasions, so much distended with blood, as actually to burst, and the lungs resemble putrid liver, the cells being filled with blood from the great distension of the pulmonary arteries. This effusion takes place in the cavity of the chest, often to the quantity of one and two buckets. In the beginning of the disease, the pulse is oppressed, from the great distension occasioned by the blood in the right side of the heart, while the left side of this viscus is weak, for want of a sufficient quantity. In the horse, peripneumony, pleurisy, &c. form only one and the same disease; although some of our latest veterinary writers have been pleased to make different chapters of each, after admitting the almost indistinguishable resemblance of the different diseases, and the necessity of recurring to the same treatment for them all.

The Causes of this disease, are a sudden change of temperature in the atmo-

sphere; the drinking of cold water, after being heated by exercise; or by exposure to a current of cold or damp air in the same state; swimming or washing the animal in a state of perspiration; high feeding, and want of regular exercise; and lastly, that blind notion of keeping the stables too hot; for nothing contributes so much to the generation of diseases of all kinds, as shutting up horses in warm and confined stables, where every door and window, and every crevice of the stable is closed up (as if the external air was infectious); by which means they constantly breathe a loathsome, strong, hot, foul air, highly impregnated with the putrid steams of their own urine, dung, &c. and every hurtful exhalation produced by the great heat of the confined air. Such a situation as this unavoidably brings the system into a completely relaxed state: the lungs being deprived of a free circulation, the animals are exposed to all kinds of distempers, which take place in consequence of obstructed perspiration; such as tumours in the glands, lumps, swelled legs, the grease, mange, farcy, inflammation of the eyes, and even the glanders. But the danger is infinitely greater when the perspirable matter, intended to be carried off in the ordinary course, fixes itself upon some internal viscus, such as the brain, the lungs, pleura, intestines, &c. From the first arise all the diseases of the brain, such as staggers, apoplexy, &c. From the second, coughs, inflammation of the lungs, consumption, &c. And in the third place, should the perspirable matter fix upon the bowels, a diarrhoea will be the consequence, which generally terminates with more or less fatal effect.

The danger of an inflammation of the lungs is in proportion to the degree of fever, which may be easily ascertained by the following invariable symptoms, viz. quick respiration; hot breath; the extremities cold; the tongue hot and dry; the flanks heaving; the animal never lying down; the last forms a very characteristic symptom: he also sometimes hangs his head.

Treatment. The most powerful means of resolution should be employed on the discovery of the disease; copious bleeding from a large orifice, or from opening the two jugular veins at once, is what we chiefly depend upon. In this operation, the quantity of five quarts may be taken at once, which answers better than the common practice of drawing three pints,

or two quarts, as practised by common farriers. Previous to bleeding, the pulse is oppressed; but it soon becomes strong and full, by the removal of the distension, by copious bleeding; but, if the evacuation be continued, it becomes weak.

We must endeavour also to bring an external irritation on each side of the chest and legs, by blistering or firing (or perhaps both) the region of the lungs; and at the same time introducing one rowel under the chest, and another under the belly. The four extremities are to be well stimulated with spirits of turpentine, twice a day; if this does not stop the progress of inflammation, we must stop the circulation in the veins by external pressure (or ligatures); and at the same time the cellular membrane, under the skin of the chest, must be inflated with air, so as to bring on inflammation; and if this does not succeed, we may inject some stimulating fluid, as spirits of turpentine, which is the best stimulus; this will be found one of the most salutary remedies in this fatal disease.

Internally, diuretics are sometimes used with advantage; such as an ounce or two of nitre made up into a ball, with a little treacle; at the same time giving the following balls, viz. tartar emetic, three ounces; opium, an ounce; treacle, sufficient quantity to be made into a mass; to be divided into twelve balls, one of which must be given in the morning, and another in the evening.

During this treatment we must inject two or three clysters of warm water every day; and the animal must also be kept in a cold stable, well clothed, taking care to allow a free circulation of air; in dry weather, indeed, an open field will be preferable to a stable. His drink must be of good warm gruel; and the animal must take no exercise during the inflammatory state of the disease. On the termination of inflammation of the lungs, a quantity of coagulated lymph is frequently left unabsorbed in the cavity of the chest; or a common anasarca of the lungs occurs from the inaction of the absorbent vessels, which had previously been excited too violently. This produces a cough, and a difficulty of breathing, which is sometimes cured by the use of a very powerful tonic; such as blue vitriol, and tartar emetic, of each three ounces, mixed with a small quantity of linseed powdered, and anisated balsam of sulphur, or Venice turpentine, sufficient quantity to mix the mass, to be divided into twenty-four balls,

given once or twice every day, according to circumstances, and continued as long as necessity requires. Should they act as a diuretic, or take the horse off his food, they must be discontinued for a few days; but when the staling is over, and the animal recovers his appetite, the medicines must be recurred to as before, until you have obtained a perfect and radical cure.

Blistering on each side of the chest will also be found very useful in promoting absorption. If the method of practice here recommended be judiciously employed, it will answer the highest expectations, in removing the inflammatory as well as chronic state of one of the most fatal disorders incident to the horse.

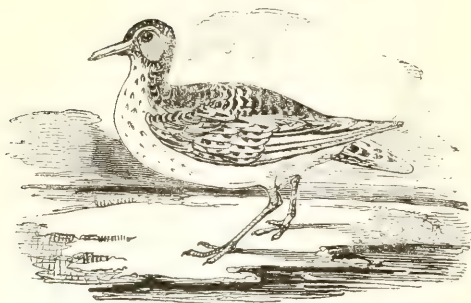
PLOVERS. There are three sorts of these birds which are very minor objects of the sportsman's pursuit; the golden, the grey, and the peewit or lapwing.

The golden plover is the size of the turtle dove; its weight nine ounces; length eleven inches, breadth twenty-four; the bill is short and black; the feathers on the head, back, and wing coverts, are dusky, beautifully spotted on each side with light yellowish green; round the eyes and the chin almost white; sides of the head, the neck, and sides of the body, the same as the upper parts, but much paler: the breast brown, marked with greenish oblong strokes; the middle feathers of the tail barred with black and yellowish green: the greater quills are dusky; the legs black; and it wants the back toe, by which it is distinguished from other birds of its kind. There is some variety seen in the colour of the belly; this is owing to the season: about the beginning of March, the appearance of black in the breast is first seen, increasing by degrees, until that part becomes a full black; but after the time of incubation, this tint again disappears, and the belly is white. The male and female differ very little, and in the young birds the spots are not of a full yellow, but incline more to grey.

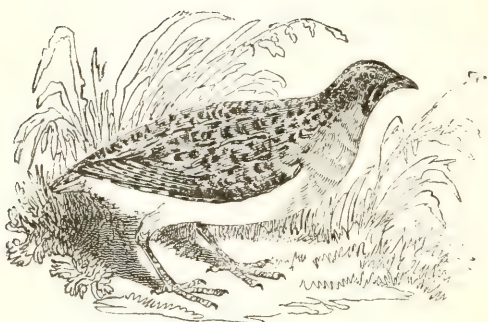
M. Baillon, who has observed these birds in Picardy, asserts, that their early plumage is grey; that at their first moult in August and September, they get some feathers of a yellow cast, or which are spotted with that colour; but it is not until after some years that they acquire their fine golden tint. He adds, that the females are hatched entirely grey, and only when old assume a little yellow; and that it is very rare to see their feathers so uniform and beautiful as the males. No longer need the distinction of tints in this species of birds be remarked, since this gentleman has proved, that the varieties result from the difference of age and sex.

This elegant bird inhabits England the whole year, and breeds on several of our unfrequented mountains; is very common on those of the isle of Rum, and others of the loftier Hebrides; also on the Grampian, and all the heathy hills of the islands and Highlands of Scotland: millions are found in the Orkneys, from which they never entirely migrate; they lay four eggs, two inches in length, more pointed in shape than those of the lapwing, and of a pale cinereous olive, blotched with blackish spots; they make a whistling noise, and fly in small flocks, and, by a skilful imitation of the note, may be enticed within shot. They frequent, in November, meadows and commons; and there was once an instance of a warrener near Bristol killing eleven at one shot. Their flesh is sweet and tender; they

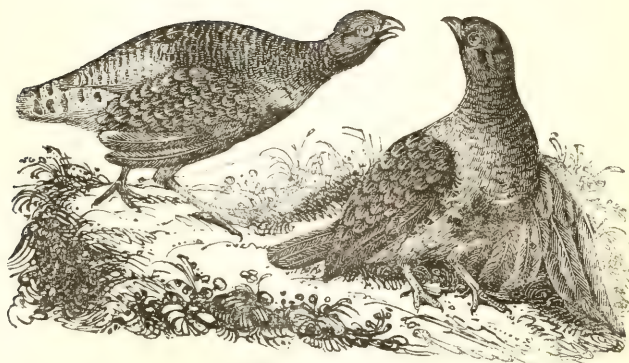
BIRDS. *Plate VI.*



PLOVER, GREY. *p.* 641.



QUAIL, *p.* 671.



PARTRIDGES, *p.* 583.

P L O V E R

are dressed like the woodcock, with their trail, and are excellent eating.

The golden plover is common in all the northern parts of Europe. It is numerous in America, from Hudson's Bay to Carolina ; migrating from one part to another, according to the seasons : is met with to the south as far as Aleppo ; and if, says Latham, the species be not mistaken, in the island of Batavia and in China. Our last voyagers found them at Owhyhee, Tongataboo, and also York Islands, but of a smaller size.

The grey plover is about twelve inches long and twenty-five broad, and weighs seven ounces ; the bill is black, about an inch long : in the roof of the mouth is a double row of spinous appendages pointing inwards ; the head, back, and wing coverts, are of a dusky brown, edged with greenish ash-colour, and some with white ; the cheeks and throat white, marked with oblong dusky spots ; the belly, thighs, and rump, white ; the exterior webs of the quill feathers black ; the lower part of the interior webs of the first four white : the tail is short, does not project beyond the wing, and is marked with transverse bars of black and white ; the legs are of a dirty green ; the back toe extremely small. This bird is in no great abundance, in England ;* they generally come in small flocks about October, and leave this country about March ; in cold and frosty weather they seek their food on such lands as lie near the sea ; in open weather they feed in ploughed fields, especially if sown ; and, having fed, fly to some plash of water to wash their beaks and feet—a habit which is also common to the woodcocks, the lapwings, the curlews, and many other birds which feed on worms ; they sleep chiefly in the day in calm weather, passing most of the night in running up and down after the worms, which then creep out of the ground : at that time they make a small cry, as if to keep their flock collected till day-break, when they unite and fly to the coast ; they are sometimes taken in nets at their first coming, and the fowler is cautious to set his nets to play with the wind ; for instance, when the wind is easterly that they may play westerly. The north-west is the worst wind to take them ; all sea-fowl fly against the wind, whenever they design to rest on the land. The preferable places for setting the nets are in large common fields of green corn, and near to water, for there they are sure to resort to clean their beaks and feet : their flesh is very delicate. In Carolina they are seen in the valleys, near the mountains, in great numbers, but seldom alight ; are also very common in Siberia, appearing there in autumn in vast flocks, coming from the extreme north, where they breed.

The lapwing or peewit.—This bird is too well known to need any

* Mr Gilpin speaks of them as sometimes abounding in the New Forest. " Plovers of different kinds (says that gentleman) are common in its heathy parts. I have sometimes seen large flocks of the grey species, and admired them as they encircled the air ; in their regular flight they in some degree resemble water-fowls, but are not so determined in their course, wheeling about and forming various evolutions : at times they appear scattered and in confusion, until closing together, as if by some word of command, they get again into form."

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description here. It is found in most parts of Europe, as far northward as Iceland. In the winter is met with in Persia and Egypt.

The chief food of the lapwing is worms; and sometimes they may be seen in flocks, nearly covering the low marshy grounds, in search of these, which they draw with great dexterity from their holes. When the bird meets with one of those little clusters of pellets, or rolls of earth, that are thrown out by the worms' perforations, it first gently removes the mould from the mouth of the hole, then strikes the ground at the side with its foot, and steadily and attentively waits the issue: the reptile, alarmed by the shock, emerges from its retreat, and is instantly seized. In the evening the lapwings pursue a different plan; they run along the grass and feel under their feet the worms, which now come forth invited by the coolness of the air. Thus they obtain a plentiful meal; and afterwards wash their bill and feet in the small pools or rivulets.

"I have seen this bird (says Dr. Latham) approach a worm-cast, turn it aside, and, after making two or three turns about, by way of giving motion to the ground, the worm came out, and the watchful bird, seizing hold of it, drew it forth."

They remain in England the whole year. The female lays four or five eggs among rushes, or upon fallows, upon a little bed which she prepares of dry grass. These are olive-coloured and spotted with black. She sits about three weeks, and the young are able to run within one day after they are hatched.

The parent exhibits the greatest attachment to them; and the arts used by this bird to allure boys and dogs from the place where they are running, are extremely amusing. She does not wait the arrival of her enemies at the spot, but boldly pushes out to meet them. When as near as she dare venture, she rises from the ground with a screaming voice, as if just flushed from hatching, though probably at the same time not within a hundred yards of her nest. She flies with great clamour and apparent anxiety; whining and screaming around the invaders, striking at them with her wings, and sometimes fluttering as if she was wounded. To complete the deception, she becomes still more clamorous as she retires from the nest. If very near, she appears altogether unconcerned, and her cries cease in proportion as her fears are augmented. When approached by dogs, she flies heavily, at a little distance before them, as if maimed; still vociferous, and still bold, but never offering to move towards the quarter where her young are stationed. The dogs pursue, in expectation every moment of seizing the parent, and by this means actually lose the young; for the cunning bird having thus drawn them off to a proper distance, exerts her powers, and leaves her astonished pursuers to gaze at the rapidity of her flight.

There are few readers acquainted in any degree with the country, who will not recollect how justly the following lines describe the manners of this bird:—

—————Hence, around the head
Of wand'ring swains, the white wing'd plover wheels
Her sounding flight; and then directly on,

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In long excursion, skims the level lawn,
To tempt him from her nest.

The following anecdote exhibits the domestic nature of the lapwing, as well as the art with which it conciliates the regard of animals differing from itself, and generally considered as hostile to every species of the feathered tribe. Two lapwings were given to a clergyman, who put them into his garden; one soon died, but the other continued to pick up such food as the place afforded, till winter deprived it of its usual supply. Necessity soon compelled it to draw near the house, by which it gradually became familiarized to occasional interruptions from the family. At length, one of the servants, when she had occasion to go into the back-kitchen with a light, observed that the lapwing always uttered his cry of "*pee-wit*" to obtain admittance. He soon grew more familiar: as the winter advanced, he approached as far as the kitchen, but with much caution, as that part of the house was generally occupied by a dog and cat, whose friendship, however, the lapwing at length conciliated so entirely, that it was his regular custom to resort to the fireside as soon as it grew dark, and spend the evening and night with his two associates, sitting close by them, and partaking of the comforts of the warmth. As soon as spring appeared, he discontinued his visits to the house, and betook himself to the garden; but on the approach of winter, he had recourse to his old shelter and friends, who received him very cordially. Security was productive of insolence; what was at first obtained with caution, was afterwards taken without reserve: he frequently amused himself with washing in the bowl which was set for the dog to drink out of; and, while he was thus employed, he shewed marks of the greatest indignation if either of his companions presumed to interrupt him. He died in the asylum he had thus chosen, being choaked with something he had picked up from the floor.

POACHER. A name given to those nocturnal depredators, by whom the game is so shamefully destroyed, in opposition to all law and in defiance of order. A poacher frequently exhibits external marks or characteristics of his profession: for instance, the suspicious leer of his hollow and sunken eye, his pallid cheek, his wide, copious jacket—in fact, his *tout ensemble* is impressively at variance with that which is exhibited by any other class of the human species. He contracts habits of idleness to such a degree, that he can scarcely ever persuade himself to work even at that period of the year when there is no longer an illicit market open for the fruits of his nocturnal depredation. As the month of September draws near, he puts his tackle in order—he prepares his destructive net, and watches with unwearied perseverance the jucking of partridges. During the season of his culpable exertion, when the rest of the world is lulled in repose, he is busied in his nefarious pursuits amidst the noxious dews of evening, amongst which he has frequently to secrete himself till he is half perished, anxiously waiting for the favourable moment, or thus eluding the inquisitive search of the gamekeeper. He retires to feverish and uncertain repose, when the more honest part of the community rise from their peaceful couches to commence their diurnal

POACHER

labour. He rises at mid-day scarcely refreshed, and seeks to renew, in the fumes of strong drink, the exhaustion which nature has experienced from the noxious prowling of the preceding night:—he thus prepares himself for a continuance of depredation. His habitation seems to take its tone from its wretched master—it wears a different appearance from those which surround it; his wife and children are clothed in rags; while he, even if unmolested, dies prematurely of an accumulation of disease, the natural result of his pernicious habits!

“It is, perhaps, among that description of persons well known by the name of *poachers* (observes a writer) that the greater number of those are trained to rapine, who infest every rural neighbourhood with their petty thefts, and whose dexterity almost bids defiance to precaution. Accustomed in the ensnaring of game, to the secrecy of fraud, and committing their depredations amidst the silence of night, those horrors, and that consequent dread, which frequently deter from the commission of great offences, gradually lose their effects. Solitude and darkness, which have wherewithal to appal the human mind in its first deviations into guilt, are divested of their terror in those pilfering pursuits; and the consequence is sufficiently well known to all, who, in the capacity of magistrates, are called to sit in judgment on the delinquency of public offenders. It is to this initiation they ascribe their subsequent enormities.

When guilt, however venal, becomes, by repetition, familiar to the mind, it is not in the power of the ignorant and uneducated to restrain its excesses; they cannot arrest their career of iniquity; they cannot chalk out the line of wrong beyond which they will not pass. Confining their first nocturnal excursions to the snaring of hares, and netting of partridges, whenever they have a less booty than usual, they are tempted to compensate the deficiency by petty plunder of some kind; and the log pile, the stack, the fold, the hen roost, all in turn pay tribute to the prowling vagabond, who fills as he can that void in his capacious bag, which has been left by his want of success as a poacher.

The great evil is, that a culprit of this class, feeling no compunction in the early stage of his guilt, proceeds carelessly to a state of the most complete degeneracy. Game is a species of property of which he has so indistinct a conception, that he scarcely thinks he has committed a moral injustice in the various stratagems by which he has contrived to obtain it; he sees not that the claim of another is better than his; he knows not whence that absolute legal right in another to that which he has taken, is derived; his companions, to whom he recounts his manœuvres, are more likely to applaud his cunning than to reprove his crime. Thus, the remorse of conscience being but slight and feeble in the outset, the wretch is encouraged by degrees to trample on the laws with greater boldness, and at length suffers as a felon!

That laws should be made to prevent the man whose family depends entirely on his labour for support, from quitting his spade, or his plough, to range the woods for a precarious subsistence, by the

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destruction of animals, must be conceded by all who contribute to the fund which is exacted for the support of the indigent in this country ; and the writer who paints in his closet the hardship of the husbandman, in being restrained from capturing what is called game, would, in his parlour, be amongst the foremost to grumble at the demand of an increased rate, occasioned by the families of half a dozen poachers coming suddenly upon the parish purse, to which he paid.

Of poachers resorting to the most desperate measures, and of even committing murder, the instances are too numerous and too notorious to need a further detail in this place. Of the extent of a poacher's labours in his vocation, a display was made in 1793, upon searching the house of a farmer in Yorkshire, when a great quantity of snares and other implements were found, and *fifteen hundred hare skins*, to all appearance killed that season ; and, to crown the whole, the culprit was constable of the parish, and *openly* very alert against offenders of his own class.

In Barnstaple, Devonshire, in 1795, died Mrs. Barbara Snellgrove, at the advanced age of 96 : and, until upwards of 94, distinguished as the most noted and most accomplished female poacher that had ever figured in this species of depredation. The skill of *Granny Bab* (the name she was known by) in taking all kinds of game, was never surpassed. She frequently boasted of selling fish to gentlemen taken out of their own ponds, and game from their own manors. Her coffin and shroud she kept in her apartments twenty years previous to her decease.

The following is a striking proof of the determined perseverance and resolution with which poachers pursue their avocation :—During a snow, in 1804, a noted poacher was shooting at a covey of partridges on the manors of Worthen and Brockton: the gun burst and terribly shattered his left hand. On his way home, he was met by a neighbour, who, observing his hand bleeding freely, inquired the cause ; when the other replied, “ the gun burst, and has blown off two of my fingers ; but never mind that, mun, I ha’ got the birds ! ”

The following verses were written on a “ man who had once been a farmer of very respectable character ; at length, however, sloth, drunkenness, and bad company, brought on his ruin, and he commenced poaching for a subsistence.” They originally appeared in the second volume of that interesting work, the *Annals of Sporting* :—

In yon wood, where the oak trees their branches are flinging

Across the wild path, to the woodman scarce known,

Over which, from its side, the dark fern is springing,

And woodbine and briars together are clinging,

Entangling the track, stands a cottage alone,

Half hid by the brambles that o’er it have grown,

And the ivy that loves o’er the ruin to roam ;

While the windows all broken, a garden neglected,

That ’mid the rank weeds can be scarcely detected,

Of sloth and of poverty picture the home :—

And such is the picture of Will Hubert’s dwelling,

Once of fair honest fame till by vice led astray,

And drunkenness each bitter feeling expelling,

To merited poverty left him a prey ;

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And scorned by his friends of his honester name,
 That name which alone can true happiness give,
 For shame and dishonour he bartered fair fame,
 The lost lonely life of a *poacher* to live.

In the twilight hour, when the rear mouse is flitting,
 And from some gray ruin the owl's heard to shriek,
 His low ruined hut oft is Hubert seen quitting,
 With net and with setter the meadows to seek ;
 When, lo ! on some wide spreading stubble his setter,
 Low creeping along, shews the covey is nigh ;
 Whilst Hubert approaches, all cautious, the better
 To mark their position, and see how they lie ;
 Then one end of his net in the earth firmly staking,
 As near to the game, unwaked, he can get,
 With the other around them, a wide circuit making,
 O'er the whole of the covey he draws the light net.
 Then, laden with spoil, to his cottage returning,
 He lays him to rest till the dawn of the day,
 And hastes to the road with the first break of morning,
 To meet the stage-coach and deliver his prey
 To his crony, the guard, with the old whisper'd warning—
 "They're a sackful of birds—stow 'em out of the way."

Oft to the warren, on the moor,
 When bright o'er all the moon-beam shin'd,
 His ferrets and his nets he bore,
 Whilst his dark lurcher lurked behind,
 And 'neath the shadow of the wall,
 One moment would he pause to see,
 In circling round the rabbits play,
 Light frisking in the silver ray
 In rapid movements light and free ;
 Then gave the signal—at the call
 At each wide spring and rapid bound
 A bleeding victim stain'd the ground,
 Till deep in earth the fearful race
 Seek shelter from their sullen foe
 In vain, for now the ferrets trace
 Each mazy burrow far below,
 And urge them forth in wild affright ;
 While Hubert stands, with ready net,
 Carefully o'er each entrance set,
 To intercept them in their flight.

Far in some marshy woodland glade,
 Where slow the sluggish waters ooze
 Across the track by woodcocks made,
 His well-limed twigs he often laid ;
 Or spread around the running nooze ;
 Or to some fenny mere he'd go,
 Where waving reeds and rushes grow,
 Where teal and wigeon love to sport,
 And duck and mallard oft resort,
 Where wild-geese wet their pinions grey,
 And stately herons love to stray ;
 There, o'er the shallow water's bed,
 His baited hooks at eve he'd spread,
 And leave them till the coming day,
 When flutt'ring o'er the ruffled tide,
 The teal and wigeon strive in vain ;

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And e'en the heron's crested pride
By the frail slender line is ta'en.

Various too, the snares he'd spread
Where pheasants haunt the green wood shade :
Along their paths he'd lime-twigs lay,
Or spread the hair nooze in their way ;
Or barley, oats, or wheat he'd use,
Steep'd in the Indian berry's juice,
Which, by the heedless birds devour'd,
Makes them fall senseless and o'erpowered,
At once a rich and easy prey :

Or, when at eve, amid the trees,
The pheasants to their roost were gone,
And hush'd and still was every breeze,
Oft would he seek the wood alone ;
And 'neath some tree he'd take his stand,
A sulphur match light in his hand,
When noxious vapours upwards thrown,
Thro' all the leaves and branches crept,
Stifling the pheasants as they slept.

Or in the dusk his snares he'd lay .
Within the entrance of some break,
There to remain till break of day,
In hopes the timid hare to take :
Nor vain his hopes—for seldom he,
When he revisited his snares,
Scarce ever failed at morn to see
A hare reward his evening cares.

Such is the life that Hubert spends,
Each night to lawless practice lent,
Each day in low-liv'd pleasure spent
In some near pot house, with his friends ;
Not like the friends which once he knew,
When pass'd his days in honest toil ;
But thieves and rogues, a drunken crew,
Share in the product of his spoil ;
While filthy jest, or obscure song,
All day the boisterous mirth prolong.

We have another picture upon the same subject, from the pen of the celebrated Sir Walter Scott, the expression of which is very forcible, and the composition altogether very poetical and highly interesting. It offers a different view of the same subject—more interesting, more impressive, and much more poetical.

Seek we yon glade, where the proud oak o'ertops
Wide waving seas of birch and hazel copse,
Leaving between deserted isles of land,
Where stunted heath is patched with ruddy sand ;
And lonely on the waste the yew is seen,
Or straggling hollies spread a brighter green.
Here, little worn, and winding dark and steep,
Our scarce-mark'd path descends yon dingle deep :
Follow—but heedful—cautious of a trip—
In earthly mire philosophy may slip.
Step slow and wary o'er the swampy stream,
Till, guided by the charcoal's smothering steam,

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We reach the frail, yet barricaded, door
 Of hovel form'd for poorest of the poor.
 No hearth the fire, no vent the smoke receives,
 The walls are wattles, and the covering leaves;
 For if such hut, our forest statutes say,
 Rise in the progress of one night and day,
 (Tho' plac'd where still the Conqueror's hests o'erawe,
 And his son's stirrup shines the badge of law*)
 The builder claims the unenviable boon,
 To tenant dwelling, framed as slight and soon
 As wigwam wild, that shrouds the native frore
 On the bleak coast of frost-barr'd Labradore.

Approach, and thro' the unlatticed window peep—
 Nay, shrink not back, the inmate is asleep,
 Sunk mid yon sordid blankets, till the sun
 Stoop to the west, the plunderer's toils are done.
 Loaded and primed, and prompt for desperate hand,
 Rifle and fowling-piece beside him stand;
 While round the hut are in disorder laid
 The tools and booty of his lawless trade;
 For force or fraud, resistance or escape,
 The crow, the saw, the bludgeon, and the crape.
 His pilfer'd powder in yon nook he hoards,
 And the filch'd lead the church's roof affords—
 (Hence shall the rector's congregation fret,
 That while his sermon's dry, his walls are wet.)
 The fish-spear barbed, the sweeping net, are there,
 Doe-hides and pheasant plumes, and skins of hare,
 Cordage for toils, and wiring for the snare.
 Barter'd for game from chase or warren won,
 Yon cask holds *moonlight*†, run when moon was none;
 And late snatch'd spoils lie stow'd in hutch apart,
 To wait th' associate higgler's evening cart.
 Look on his pallet foul, and mark his rest:
 What scenes perturb'd are acting in his breast!
 His sable brow is wet and wrung with pain,
 And his dilated nostril toils in vain;
 For short and scant the breath each effort draws,
 And, 'twixt each effort, nature claims a pause.
 Beyond the loose and sable neckcloth stretch'd,
 His sinewy throat seems by convulsions twitch'd,
 While the tongue falters, as to utterance loath,
 Sounds of dire import—watch-word, threat, and oath.
 Though stupified by toil and drugged with gin,
 The body sleeps, the restless guest within
 Now plies on wood and wold his lawless trade,
 Now in the fangs of justice wakes dismay'd.—
 “Was that wild start of terror and despair,
 Those bursting eyeballs and that wilder'd air,
 Signs of compunction for a murdered hare?
 Do the locks bristle and the eyebrows arch
 For grouse or partridge massacred in March?”
 No, scoffers, no! Attend, and mark with awe,
 There is no wicket in the gate of law!
 He that would e'er so slightly set ajar
 That awful portal must undo the bar;

* Such is the law in the New Forest, Hampshire, tending greatly to increase the various settlements of thieves, smugglers, and deer stealers, who infest it. In the Forest Courts, the presiding judge wears, as a badge of office, an antique stirrup, said to have been that of William Rufus. † A cant term for smuggled spirits.

Tempting occasion, habit, passion, pride,
 Will join to storm the breach, and force the barrier wide.
 That ruffian, whom true men avoid and dread,
 Whom bruisers, poachers, smugglers, call Black Ned,
 Was Edward Mansell once;—the lightest heart
 That ever play'd on holiday his part!
 The leader he in every Christmas game,
 The harvest feast grew blither when he came,
 And liveliest on the chords the bow did glance
 When Edward nam'd the tune and led the dance.
 Kind was his heart, his passions quick and strong,
 Hearty his laugh, and jovial was his song;
 And if he lov'd a gun, his father swore
 " 'Twas but a trick of youth—would soon be o'er,
 Himself had done the same some thirty years before."

But he, whose humours spurn law's awful yoke,
 Must herd with those by whom law's bonds are broke.
 The common dread of justice soon allies
 The clown, who robs the warren or excise,
 With sterner felons, train'd to act more dread
 Even with the wretch by whom his fellow bled.
 Then—as in plagues the foul contagions pass,
 Leavening and festering the corrupted mass—
 Guilt leagues with guilt, which mutual motives draw,
 Their hope impunity, their fear the law;
 Their foes, their friends, their rendezvous, the same
 Till the revenue baulk'd, or pilfer'd game,
 Flush the young culprit, and example leads
 To darker villainy, and direr deeds.

Wild howl'd the wind the forest glades along,
 And oft the owl renew'd her dismal song;
 Around the spot where erst he felt the wound,
 Red William's spectre walk'd his midnight round.
 When o'er the swamp he cast his blighting look,
 From the green marshes of the stagnant brook
 The bittern's sullen shout the sedges shook!
 The waning moon, with storm presaging gleam,
 Now gave and now withheld her doubtful beam;
 The old oak stoop'd his arms, then flung them high,
 Bellowing and groaning, to the troubled sky—
 'Twas then that, couch'd amid the brushwood sere
 In Malwood Walk young Mansell watch'd the deer:
 The fattest buck receiv'd his deadly shot—
 The watchful keeper heard and sought the spot.
 Stout were their hearts, and stubborn was the strife,
 O'erpower'd at length, the outlaw drew his knife!
 Next morn a corpse was found upon the fell—
 The rest his waking agony may tell!

POCHARD, THE. This species, like the pintail, and some others, is common both to the old and new continent. With us it frequents the fens, as well as the coasts and tide rivers; in which last it is taken sometimes extremely fat in the severest weather. It is not ascertained whether they breed in England; but in France one has been shot in the month of July. Their food is small fish and shells: they are found south as far as

Egypt, about Cairo, and in Carolina, during the winter. They have a hissing voice; their flight is more rapid than that of the wild duck, and the noise made by their wings is quite different; the flocks observe no particular shape in flying, as the duck, in triangles, but form a close body.

The pochard is about the size of a wigeon, weighs one pound twelve ounces; its length is nineteen inches; breadth,

two feet and a half; the bill is broader than the wigeon's, of a deep lead-colour, with a black tip; irides, orange; the head and neck deep chesnut, with a small triangular spot of white under the centre of the lower mandible; the lower part of the neck and breast, and upper part of the back, dusky black; scapulars and wing coverts nearest the body of a greyish white, elegantly marked with narrow lines of black: the exterior wing coverts and quills, dusky brown; secondary quill feathers regularly edged with a stripe of white; the belly ash-coloured and brown; vent feathers, and coverts of tail, black; the tail consists of twelve short feathers, of a deep grey; the legs lead-coloured. The female has the head of a pale reddish brown; the breast is rather of a deeper colour; wing coverts and belly, cinereous; the back marked like that of the male.

These birds are eagerly bought by the London poulterers, under the name of dun birds, as they are deemed excellent

eating: the greater part of what appear in the markets are caught in decoys.

POINT. A horse standing in his stall, or elsewhere, with one fore-leg at some distance before the other, is always concluded to have sustained some injury either in the shoulder, or in the ligamentary junction of the coffin and coronary bones, concealed in the box (or cavity) of the hoof. This is in a considerable degree to be relied on; but there are many instances in which a horse accustoms himself to awkward positions, and they become habitual: some stand with either the near or the off fore-leg eternally before the other, and are as perfectly sound as any horses in the kingdom.

POINT. The position of a pointer when standing steadily at game. When the sportsman perceives this position in one of his dogs, he generally uses the exclamation *Toho!* in order to draw the attention of the other dogs, and render the first steady to the point.

POINTER. The dog which is distinguished by the appellation of the pointer is of foreign origin; and is known not only in Spain, but in Portugal, and also in France, and is indeed to be met with in almost all parts of the continent, as well as in Great Britain and Ireland; with some slight difference, however, of form.

Those pointers direct from Spain (which is supposed to be the original country of the pointer, and thence frequently called the Spanish pointer) which have fallen under the observation of the writer, have been heavy and clumsily formed; those from Portugal are somewhat lighter; while the French breed is remarkable for a wide furrow which runs between the nostrils, and which gives to the animal's countenance a very grotesque appearance. They all, however, exhibit a very different character and form to the setter: they are thick and heavy creatures, with large chubby heads, long pendant ears, and covered with short smooth hair; nor do they always possess that generosity of disposition which is so distinguishing a trait in the character of the setter: on the contrary, they are often ill-tempered and snappish; and in fact are good for little in this country till they have been crossed with the more generous blood of these islands; and a judicious cross of this kind produces the best dogs in the world for the purpose of grouse and partridge shooting.

Yet the conjunction of the setter and the pointer is by no means advisable, since the production generally unites the worst qualities of the two, without any of those requisites perhaps for which the two breeds are most highly prized. Dogs thus produced, are, for the most part, headstrong, turbulent, require excessive correction, and are rarely brought to that steadiness which marks the distinct breeds. It is true, sometimes a first rate dog is produced between a setter and a pointer; but it rarely happens: the cross at best is never to be depended on; and for one good dog, thus obtained, there will be found



POP AND THE DOG



P O I N T E R.

twenty very indifferent or bad ones on an average; while not the least dependance can be placed on the offspring of the very best dogs thus propagated. Excellent dogs have been produced by the fox-hound and the Spaniard; and in all probability the fox-hound had much of the talbot blood; nor have we any hesitation in supposing that excellent pointers might be bred from the talbot and the Spaniard; but since the former is nearly extinct, and as all hounds have been produced from him, and still retain more or less of his blood, the nearer we can approach him the better: therefore, the deep-flewed hound is to be preferred; the kibble, and even lighter kinds of hounds, may answer the purpose; but what is thus gained in speed is not a sufficient compensation for unsteadiness and inferiority of nose. The Spaniard, however, from having been judiciously crossed, has arrived at a degree of perfection so as to leave little to be desired on this head: and excellent pointers are to be met with in most parts of England. They differ from the setter, inasmuch, as when they have approached sufficiently near the game, they stand erect; whereas the true bred setter will either sit upon his haunches or lie close to the ground—generally the latter. It may be also very justly remarked that though a particular strain of either the pointer or setter may have arrived at a great degree of perfection, yet, if continued on the same strain for a length of time, it will degenerate; in order, therefore, to prevent that dwindling or falling off which would inevitably take place, recourse must occasionally be had to other strains; that is, to dogs of the same kind, but bred in different parts of the kingdom, taking care to choose animals of undoubted merit from which to breed; and in order to avoid the possibility of being misunderstood, it will be necessary to observe, that, in thus giving directions for preserving the requisite qualities in perfection, we do not mean in this case that recourse should be had to the talbot, fox-hound, or any other kind of dog used for a distinct purpose, but merely to procure a pointer (either sire or dam) from a distant part of the country, if pointers are the object; and the same in respect to setters.

Pointers often suffer much from sore feet; considerable difference however, will be found amongst them in regard to their feet. White footed dogs perhaps will generally be found more tender in this respect than those whose feet are of a dark colour. Black, brown, or any dark coloured pointers have generally better feet than light coloured dogs; though the latter, if their legs are brown or dark coloured towards the feet, are unobjectionable. A small, narrow-toed, hard foot is a great object to attain, as dogs thus furnished, run well, and are not liable to be foot-sore; dogs, however, with thin, wide-spread, large-balled feet, very soon become foot-sore, cannot endure much fatigue, and are, consequently, scarcely worth keeping.—See the article SHOOTING.

The most remarkable pointer ever known was the celebrated dog, Dash, the property of the late Colonel Thornton. He was produced by a cross of the fox-hound with a high bred pointer bitch; he was remarkable for his style of ranging upon the moors, as well as his superior method of finding; and which, when hunting in inclosures for

partridges, shewed an instinct or sagacity almost incredible, by constantly going up to the birds without any previous quartering of the ground, added to his steadiness in backing other dogs, rendered him, it is supposed, the best pointer which was ever produced. Dash was sold to the late Sir Richard Symons for one hundred and sixty pounds worth of Champaign and Burgundy, which had been bought at the French Ambassador's sale, a hogshead of claret, an elegant gun, and a pointer; with a stipulation that, if any accident befel the dog that might render him unfit to hunt, he was to be returned to the Colonel at the price of fifty guineas. The dog had the misfortune to break his leg, and was sent to Colonel Thornton, who paid the fifty guineas, according to agreement, and he was afterwards kept as a stallion, with, however, little success.

There are many good pointers in various parts of England, and particularly in Yorkshire. In the Highlands of Scotland, the pointers are of a very inferior description, at least those belonging to the natives.

The perfection of the pointer, like that of the hound, is a most desirable object: if the pointer be produced with a handsome form, plenty of bone, good feet, of the middle size; if, in fact, he be produced with a form and figure calculated for motion and endurance, with as large a head as possible; the sportsman will have every reason to be satisfied—in such cases, he approaches as near to perfection as possible.

POISON, REMEDY FOR DOGS THAT HAVE TAKEN. See p. 225.

POISON. In the last sixteen years of my practice (says Fearon) I have made various experiments on the effects of the different kinds of what is called poison. From the benefit I have received in such trials, I have been able to learn, that what is termed poisonous substances, have proved to be the most salutary remedies of the *materia medica*; and that their injuries to the system proceed from their having been improperly administered. I have tried very extensively all the substances that are reputed poisonous; as arsenic, corrosive sublimate, terra poudrasa, butter of antimony, opium, blue and white vitriol, hemlock (night shade, or aconite), digitalis or fox glove, nux vomica, &c. &c.

At different times I have given every one of these to horses with the greatest success, in many infectious and inveterate disorders, such as the mange, farcy, the glanders, and other chronic disorders of difficult management.

The mischief arising from them is always in consequence of their improper administration, by giving too large doses at once, either by mistake or ignorance, or with the intent of destroying life.

When they have been thus imprudently or maliciously administered, it is certainly necessary to know what method can be taken to prevent the mischief that might ensue. But when this is the case, it is very often extremely difficult to succeed, nature having denied to the horse the salutary process of vomiting.

Poisons are of various kinds; and, before any attempt is made to relieve, we ought to ascertain, if possible, what kind of poison the animal has taken; without this, little success is to be expected from any thing we can administer.

When arsenic, or corrosive sublimate, has been given, if the accident is discovered in time, the poison may be rendered harmless, by drenching the animal with water in which a quantity of alkali (potass, soda, or salt of tartar), has been dissolved, taking care not to make the solution much sharper than a man can bear in his mouth. It may be made by dissolving an ounce of salt of tartar in eight ounces of water; the quantity to be given, to be regulated by the effects produced by the sublimate; from a pint to a pint and a half, however, may be given at once, and continued till the danger is over. The same treatment may be attempted when arsenic has been given,

with the same appearance of success. In some instances oil, given in a large quantity, from a pint to a quart, has succeeded to eradicate the poisonous quality of arsenic and corrosive sublimate ; and indeed it will be found very beneficial after the administration of the above medicines. Opium, and all the vegetable poisonous substances above mentioned, destroy life by a different effect than that of the mineral corrosive, for which oil, or a mucilaginous substance, is a real specific, as the effects of those poisons seem to be to kill by acting entirely on the nerves of the stomach. It is necessary to remind the reader that we consider poisons, with a view of preventing their fatal effects, when accidentally taken in too large quantities only. As to those poisons, which produce their effects by admission into the blood, such as the bite of a mad dog, viper, &c. we refer to the article DOG DISEASES.

POISONING & ALLURING FISH.

Walton relates a circumstance of his fishing with Oliver Henely, who usually took three or four worms from his bag, and put them into a small box, where he let them continue half an hour or more previous to his baiting his hook with them. To the question, why he did this? his answer was, "he only picked out the best to be in readiness against his hook's wanting to be new baited:" but, continues Walton, he has been observed, both by myself and others, to catch more fish, especially salmons, than I or any other person that ever fished with him could do ; and it was lately told me by one of his most intimate friends, that the box in which the worms were put was anointed with a drop or two of the oil of ivy berries, and that by the worms remaining inclosed, they had incorporated a kind of smell, that to the fish was irresistibly attractive. Walton acknowledges, that in his younger days he tried several oils and devices to induce the fish to bite, but without finding any advantage ; and yet he adds, that he has seen men fishing with the same kind of worms and tackle, that have taken five, and sometimes ten, fish to his one. Without presuming to assert that the authority of Walton leans to either side of the question, or to ridicule what some anglers have possibly a reliance upon, a variety of ancient recipes, for the allurements of fish (perhaps first imparted as invaluable secrets,) will be recited, to be adopted or rejected, as may suit the different tempers of modern artists. Some of these excellent receipts, it

must however be remarked, are whimsical enough ; such, for instance, as a paste made of " mulberry juice, hedge-hog's fat, oil of water lilies, and a few drops of oil of penny-royal." Some invention was at least employed to select these ingredients ; many of the following are equally uncouth : but the sceptic may either indignantly turn over the page, or indulge in the mirth which, to an unbeliever, its perusal may excite. The admirers of these potent spells however insist, that baits to catch fish must have four properties : they must smell well, and that makes fish come from remote places ; for this, anniseed, juice of panan, cumin, which is best of all, is to be employed. Secondly, they must taste well, that thereby they may be deceived ; for which use blood, especially hog's blood, and wheat bread. Thirdly, the baits must fume to the head, to make them drunk ; as aqua-vitæ, lees of wine. Lastly, they must render them senseless : such as marigold flowers, for these will make great fish astonished in one hour's time ; so will lime, nux-vomica, but nothing better than *coccus indicus*.

Fish may be collected into any part of a river or piece of water, by throwing in goat's, sheep's, and bullock's blood, which is found among the entrails of the fresh killed animals, pounded well together with thyme, marjoram, origanum, flour, garlic, wine lees, and suet, and the whole made into pills.

For a standing water, heart-wort and slack lime made into a paste, will fix the fish so as to be taken at pleasure.

Fresh horse-dung put into a net, and thrown into the water, will entice the fish about it.

Quicksilver let down to the bottom of the water, in a thick glass phial, on a moonlight night, will evince its power, to a quick-sighted observer, of drawing the fish together.

Barley boiled until it bursts, then re-boiled with liquorice, a little mummy and honey beat in a mortar until stiff as paste, and thrown into the water, will induce the fish to come where it is cast.

Goat's blood, barley meal, and the lungs of a goat boiled and pounded fine, and mixed with lees of sweet wine ; the whole made into pills, and thrown into ponds or pits, will soon render the fish intoxicated, which the person probably was who bestowed his labour to form the composition.

Extract the juice of dragon-wort, rub the hands with it, and hold them in the

water about five or six in the morning; and it is the performer's own fault, if he has not fish for dinner.

House leek juice, with nettles and cinquefoil, chopped small, distributed in quantities in the water, and the hands previously rubbed with it, induce the fish to come to the person, that he may take his choice.

Coculus indicus, or fisher's berries, pounded in a mortar with water into a paste, made up into pills, and thrown into any undisturbed part of a pond or river, will so intoxicate every fish that swallows any of them, that they will float on the surface, and may be taken out by the hand or landing-net. To the *coculus indicus*, some add cummin, old cheese, wine lees, and wheat flower. It is to be observed, for the benefit of those who do not wish to be poisoned, that those berries, are of a deleterious nature; and it depends upon the size of the fishes, and of the quantity of the paste they pick up, whether it kills or only intoxicates them. It is said that those which have eaten sparingly, by being immediately put into fresh water, will recover, and (if meant for the table) may, when well gutted and cleaned, be eaten with safety; but it is submitted, that even an alderman would pause, before he indulged his appetite with fish, that might call for the aid of powerful antidotes, before even the cloth was removed. If the dish, when dressed, could be made to fall to the lot of the poacher only, who employs this dangerous mode of obtaining fish, the practice, from motives of personal safety, would soon cease*.

Heron's fat, mummy, galbanum, two grains; musk, one; mixt in an earthen porringer over a gentle fire, with two ounces of aqua vitæ, and stirred until thick, then kept in a leaden vessel, will preclude all use of a bait; for, by rubbing the hook, ends of the line, or cork, the fish may be taken out with the hand, or the practitioner may fasten them on the

hook himself, if he prefers the pleasure of landing them scientifically.

Heron's flesh, with some musk, amber, and civet, put into a bottle, close covered with wax; the bottle to be placed in a kettle full of water, and boil it until the said flesh is converted into oil; and this rubbed on the line insures the coming of the fish to be taken.

Heron's bowels cut in pieces, and put into a phial, and buried in horse dung, will turn to oil in fifteen days; an ounce of assafetida is then to be mixed, when it will be the consistence of honey: anoint line, rod, or bait, (it does not much signify which) and it will do wonders.

Oil of ivy berries has been already spoken of, and what it can do in scenting worms for taking fish. Any one may procure gum ivy, which is said to be still more powerful, by driving some great nails into ivy stalks at Michaelmas; and having wriggled the nails until loosened, they are to remain, and the gum will flow from the wounded parts, which the operator may collect monthly, or oftener, if convenient.

Gum ivy, two ounces dissolved in a gill of spring water, mixt together with the like quantity of oil of sweet almonds; the worms, well scoured, intended for the day's use, are to be put into linen thrums (or the ends of the warp, when the piece is finished) well washed in spring water and squeezed; the thrums are then to be wetted in this composition, and with the worms put into a linen bag, from whence they are to be used.

Assafœtida, three drachms; spikenard of Spain, one; put into a pint of spring water; place it in the ground in the shade fourteen days; drain the solution through a linen cloth, and add to the liquor one drachm of spermaceti, and keep it close; put the worms (well scoured) meant to be used, upon a pewter plate, and pour some of the water over them, and then return them into the moss.

Put camphor in the moss, where the worms are for the day's fishing.

For a trout in muddy water, and for gudgeons in clear, anoint eight inches of the line next the hook with the following:—Assafetida, three drachms; camphor and Venice turpentine, of each one; pounded together in a mortar, with some drops of the chemical oil of lavender or spike.

Sea-gulls' fat and eringo juice, mixed together, are asserted to have great at-

* In 1788 an accident of this kind, which terminated fatally, happened in Lancashire. Two young men having caught a large quantity of trout, by mixing lime with the water in a small brook, ate heartily of the trout at dinner the next day: they were seized at midnight with violent pains in the intestines; and though medical assistance was immediately procured, they expired before noon in the greatest agonies.

traction as an unguent ; and oil of amber, rosemary, and myrrh, equal portions of each, mixed with the worms or in paste, are said to make the bait so tempting, that no fish in his senses can resist it : worms also, killed by putting them into a phial of oil of camomile, prove an equally irresistible morsel.

To be certain of a net's doing execution, beat nettles with joubarbe, and a small quantity of cinquefoil grass ; to them add wheat boiled in marjoram and thyme water ; pound the whole together, and drop it into the net.

Marjoram, marigolds, wheat flower, and rancid butter, pounded together, will allure fish of all kinds to the net. A natural query arises as to the kind of nets, and in what manner these baits are to be retained in them ?

Scented ground bait. Unpickled samphire bruised, made up in balls with walnut-oil, is pronounced excellent for carp, bream, or tench ; also bean flour, with a little honey, wetted with rectified spirits of wine and oil of turpentine, made up in small pellets, and thrown in over night, will keep the fish at the place, where they may be found with all desirable keenness, ready for biting, the next morning.

Juice of camomile, half a spoonful ; chemical oil of spike, one drachm : oil of canary by infusion, one drachm and a half ; goose grease, two drachms : these are to be dissolved over the fire, and stand until cold, then are to be put into a bottle unstopped for three or four days, then to be corked close, and the bait to be anointed with it ; when to this is added three drachms of the spirit of vitriol, it is called (but perhaps not so universally found to be) the infallible bait.

A part of the same fish designed to be angled for, bruised to pieces with fennel and honey, put into clear water, and boiled to an oily consistence as thick as mustard : and the oily liquor strained through a linen cloth, into which not only the worm on the hook, but ten inches of the line, are to be frequently dipped, has great effect, but is very erroneously (it is conceived) stated to be Mr. Walton's prime receipt.

The nostrum that will however answer most profitably to him that tries it, is taking a fat goose or duck, and stuffing him with sage, marjoram, and fresh lavender shred small ; together with castor, gum ammoniac, nutmeg, mace, and cloves beat well together in a mortar ; the bird is to be roasted and eaten ; the dripping

only, when mixed with the oil of a dead man's skull, and oil of earth-worms, (which must be the quintessence of the last ingredient) is to be used as an ointment ; it is presumed the roasted animal will receive more bites, than the dripping will be able to acquire with all its additional allurements. But the grand secret is yet to be unfolded, upon which too high a value cannot be attached : cat's, heron's, and man's fat, mummy, and the best assafoetida, of each two drachms ; cumin seed finely powdered, two scruples ; camphor, galbanum, and Venice turpentine, of each one drachm, and civet two grains ; make them up, *sec. artem*, into a thinnish ointment, with the chemical oils of lavender, anniseed, and camomile ; keep it in a narrow mouthed, well-glazed gallipot, covered with bladder and leather, and it may be preserved two years. When wanted, put some of it into a taper pewter box, and anoint the line with it about nine or ten inches from the hook ; when it is washed off, repeat the unction, and if the fish is so infatuated as to swallow the line first, and the hook and bait afterwards, there certainly will be ample proof of its efficacy.

The idea of charming fish is not peculiar to European practitioners : it is resorted to in various parts of the world. We are told that the Indians at Hudson's Bay, when they bait their hooks in angling, first sew a composition of four, five, or six articles round it by way of charm. The materials are bits of beavers' tails and fat ; otters vent and teeth ; musk-rats' guts and tails ; loons' vents ; squirrels' testicles ; the curdled milk taken out of the stomach of sucking fawns and calves ; human hair, and numberless other articles equally absurd. Every master of a family has a bundle of such trash, which they always carry about with them both in summer and winter ; and without some of these articles to put under their bait, few of them could be prevailed upon to put a hook into the water, being fully persuaded that they may as well sit in their tent as angle without such assistance. They have also a notion that fish of the same species, inhabiting different parts of the country, are fond of different things, so that almost every lake and river requires an alteration of the charm. The same rule is observed on broiling the first fruits of a new hook that is used for a new net ; and an old hook that has already been successful in catching large fish is esteemed more valuable than a

handful of new ones which have never been tried.

This superstitious method of alluring the fish is not confined to the hook only, but a new net must have the bills and feet of the laughing goose, wavey, gulls, loons, and blackheads, fastened to its head and foot-rope; and at the four corners, the toes and jaws of an otter and jackass; and unless some or all of these be fastened to the net, they will not attempt to put it into the water, firmly believing it would

not catch a single fish. The first fish, of whatever species caught, in a new net are not to be sodden in water, but broiled whole, and the flesh carefully taken from the bones without dislocating one joint; after which the bones are laid on the fire at full length, and burnt. A strict observance of these rules is supposed indispensable for the future success of the new net, and a neglect of them would render it not worth a farthing.

POLECAT. This animal, which is very destructive to game, and consequently a great enemy to the sportsman, passes under various names or local appellations. In some parts of this country it is known by the name which appears at the commencement of this article; in others it is called a phillemark, a fitchet, or a fougart. The polecat is larger than the ferret, which it very much resembles in form; there are, however, internal differences which distinctly mark these two animals, and the vulgar report that they will mix or breed together, has, in all probability, no better foundation than fanciful ignorance: the polecat has but fourteen ribs; whereas, the ferret has fifteen; and it also wants one of the breast bones which is found in the ferret. The polecat has a blunter nose than the ferret, and is not quite so slender. It is, for the most part, of a deep chocolate colour; it is white about the mouth; the ears are short, rounded, and tipped with white; a little beyond the corners of the mouth, a stripe begins which runs backward, partly white, and partly yellow: its hair is of two sorts, the long and the furry, and the two kinds are of different colours; the longest is black and the shorter a dull or dirty yellow; which of course causes the *toute ensemble* to assume the chocolate appearance before mentioned: the throat, feet, and tail, are blacker than any other parts; the claws are white underneath and brown above; and its tail is about two inches and a half long. The polecat, like the fox, avoids as much as possible, the human countenance; and, like the fox too, possesses the most undaunted courage: it evinces an insatiable thirst for blood, and is very destructive to young game of all kinds; if it is not openly so to that which is full grown, it is because it is not so easily caught: it will surprise hares on their seats, will seize partridges or pheasants on the nest; and is incredibly destructive in a rabbit warren. Their retreat is generally in banks well sheltered with brambles or under-wood, or amongst brakes or woods, or other similar situations. They burrow in the ground, making a tolerably large hole about two feet deep, which may easily be known by any person who has ever noticed the hole of a polecat. In winter they will frequently approach houses or buildings, and will rob the hen roost, the pigeon house, or even the dairy: on these occasions, they contrive to form a retreat either in or under some of the walls, from which they are not easily dislodged; if they are unable to secure an asylum of this sort, they will make their way under the corn stacks of the farmer, and whenever

this happens to be the case, all the rats in the immediate vicinity remove to a greater distance: the polecat is a deadly enemy to the rat, and of this the latter is very well aware; yet it is also conscious of the inability of the polecat to pursue it through its burrows or runs, and therefore removes no further from the presence of its enemy than what may suit its convenience; thus the writer of this article witnessed an instance where a great number of rats were found in a stack of wheat, but all of them in the upper part; for several yards from the ground, not a rat was to be met with, which excited some surprise; but the circumstance was fully explained on reaching the bottom, where it was found an enormous polecat had taken up its abode.

The female brings forth her young in the spring, to the number of from four to six at a time. To "stink like a polecat" is a common observation in some parts; and indeed so impregnated does every part of this animal appear to be with a very offensive fetid matter, that even the fur, which is soft and warm, can scarcely be divested of it:—whenever the polecat happens to be killed, the fetid matter just mentioned issues from the pores of its body in great quantities, forming a very unpleasant effluvium, which is perceptible at some distance, even to the obtuse olfactory organs of a human being.

There are farmers to be met with, who, whenever a polecat approaches their barns or outhouses, afford it every possible protection, on account of its enmity to rats; but as its chief propensities are in direct opposition to the views of the sportsman, so gamekeepers should be careful to destroy it wherever it is to be met with. It may be caught by means of traps, or by terriers. In the midland counties, hunting the polecat by moonlight forms a diversion for school-boys and the younger branches. The polecat leaves its hole when night sets in, and prowls for prey; it is then quested for and chased by terriers, one of which (the best) has a small bell fastened round his neck, in order to give notice to the hunters when the dogs are out of sight, though, when they are in chase, they open of course: the polecat makes directly for its hole, and if it be not killed before it reaches it, the animal is dug out and worried on the spot.

POLL-EVIL (says Feron) is nothing more than a common abscess, situated on the top of the head, running between the ligaments and bones of the neck and head, which, in a very short time, will form many sinuses. There, in consequence of being so deeply seated, matter cannot find vent at the surface by bursting the skin, like a common abscess, but spreads so much under the bones and ligaments of it, as to be shortly highly diseased, before suppuration shews itself externally. And if the matter is allowed to continue its ravages upon those parts, the ligamentum colli itself becomes affected, and the case often rendered incurable. This complicated ulcer and sinuses will

shew how little is to be expected from the frivolous and empirical applications of the generality of common horse doctors, who, not possessing an atom of anatomical knowledge, cannot expect their receipts to be adequate to the task of curing; the consequence is, that in such hands the animal often terminates his sufferings by being sent to the dog kennels. Poll-evil (as it is called) generally proceeds from external injuries, such as a violent blow received on the top of the head, by striking it against the ceiling of a low stable, or by the brutality of man, &c. &c.

The Treatment of this disease is extremely easy; if the accident is recent, it

will often give way to one or two applications of a strong blister, and a copious fomentation of warm water twenty-four hours after. By this simple treatment, carie of the bones, and ligaments of the head and neck, will be prevented. But when matter and sinuses are formed, the disease requires more bold and scientific treatment: we must begin by giving a free discharge to the matter or pus at the inferior and lowest part of the abscess in proper time, by opening every hole or sinus by making an incision through the whole extent of the cavity, when it can be done with safety, and then introduce a seton or two on each side of the head, or in the cavities or sinuses themselves, which should be moved every day, and washed with spirits of turpentine, taking care to keep a free and constant discharge, until the bottom of the wound gets sound, if the bones of the head or neck are greatly enlarged, and carious; in this deplorable state, the actual cautery must be introduced to the bottom of every sinus, in order to produce exfoliation of the rotten particles of bones as quickly as possible; which operation is often found necessary to be repeated, in order to keep the orifice open, until all the sinuses are completely filled up, without which no cure can be expected; and, indeed, it is entirely owing to this circumstance, that the cure of the poll-evil is often rendered impracticable.

POMERANIAN OR WOLF-DOG.

The dog, so called in this country, is but little more than eighteen or twenty inches in height, and is distinguished by his long, thick, and rather upright coat, forming a ruff round the neck, but short and smooth on the head and ears; they are mostly of a pale yellow or cream colour, and lightest on the lower parts. Some are white, some few black, and others, but very rarely, spotted; the head broad

towards the neck, and narrowing to the muzzle; ears short, pointed, and erect; nose and eyes mostly black; the tail large and brushy, invariably curled in a ring upon the back. In England, this animal is better known by the name of fox-dog, and this may originally have proceeded from his bearing some affinity to that animal about the head.

This animal is by nature frivolous, artful, noisy, quarrelsome, cowardly, petulant, and deceitful; snappish and dangerous among children, without one predominant property of perfection to recommend him. This breed of dogs is common in Holland, and the animal has occasionally been introduced as a hieroglyphic by the caricaturist partisans of the House of Orange (in opposition to the pug) to ridicule the patriots in their political disputes. There is this peculiarity in the coat of this dog: his hair, particularly the ruff about his neck, is not formed of hairs calculated to describe the serpentine, or line of beauty, but is simply a semicircle, which, by inclining the same way in large masses, give him a respectable and attractive appearance; and, although they do not manifest so great a degree of fondness and affection for their owners as some others of this species, yet they are not to be readily or easily seduced. The largest of these dogs are used for draught in different countries, particularly by the Kamtschadales, and indeed by most of the nomadick nations. From the name (Pomeranian) it might be supposed that they were originally bred in that country; but this is not the case; they are to be found in almost all the northern regions, where they are used as beasts of burden or draught: while nature, kind to all her creatures, has provided them with an uncommon warm coat, as a protection against the cold and dreary climate which they inhabit.

POOL SNIPE OR REDSHANK. The pool snipe resides the greater part of the year in the fen and marshy countries, where it is pretty common; and there it breeds and rears its young, laying four whitish eggs, tinged with olive, and marked with irregular black spots, most numerous at the large end. When disturbed, it has nearly the actions of a lapwing, in flying round its nest, which it is said to do in such regular circles, the nest being in the centre, whether the circuits be larger or smaller, insomuch that an attentive observer will find it by this circumstance. The pool snipe is in length twelve inches, in breadth twenty-one, and weighs about six ounces: the bill is two inches long, slender, and like a woodcock's; of a dark

red at the base, and black towards the point : the tongue is sharp and undivided ; the upper mandible longer, and sometimes crooked at the very tip : irides reddish hazel ; a whitish line passes over and encircles each eye, from the corner of which a dusky brown spot is extended to the beak. The head and hind part of the neck, dusky ash-colour, spotted with brown : back and scapulars glossy olive brown : wing coverts ash-colour, mixed with dusky and brown, and marked with whitish spots : the bastard wing and primary quills are brown ; the inner webs of the latter are deeply edged with white freckled with brown, and some of these quills next the secondaries are elegantly marked near their tips with narrow brown lines, pointed and shaped to the form of each feather. Some of the secondaries are similarly barred, others are white : the throat and fore part of the breast are marked with short dusky spots ; the under parts from the breast, and the lower parts of the back and rump, white, marked with minute dusky spots : tail coverts and tail crossed with narrow bars of black, twelve or thirteen on each feather : legs orange red, and measure, from the end of the toes to the upper bare part of the thigh, five inches and a half : claws black. In some birds, both the rump and belly are of a pure white. The pool snipe is common in many parts of Europe, as high as Finland ; is likewise found in Siberia, and is indigenous also to the continent of America.

POST MATCH. A term in racing, where it is only necessary to insert the age of the horses in the articles, and to run any horse of that age, without declaring what horse, till he appears at the post.

POT-EIGHT-O'S. A chesnut horse, foaled in 1773, bred by the Earl of Abingdon, and sold to Lord Grosvenor.

Pot8o's was got by Eclipse, out of Sportsmistress.

At Newmarket first spring meeting, 1776, Pot8o's, 8st. 11lb. won a sweepstakes of 100gs. each, Bunbury's Mile, beating the Duke of Northumberland's filly, by Match'em, 7st. 13lb. ; and Mr. Vernon's br. filly, by Snap, 7st. 13lb.—6 to 4 on Pot8o's.

At Newmarket first spring meeting, 1777, Pot8o's came second to Lord Grosvenor's Yellow Jack, for the claret stakes, by which he was entitled to two hogsheds of claret:—In the same year, he was beat by Grey Robin and Cannibal, also by Mr. Swinfen's ches. colt, Country Squire, by Chrysolite, out of Shark's dam.

At Newmarket first spring meeting, 1778, Pot8o's won the renewed 1200gs. a subscription of 100gs. each, (eight subscribers) 9st. R. C. beating Lord Grosvenor's Grey Robin, and Lord Ossory's Titan:—11 to 5 on Pot8o's. In the second spring meeting, he won the 140gs. for five-years old horses, &c. B. C. beat-

ing Mr. Vernon's Rasselas, and Sir C. Sedley's Fleacatcher:—2 to 1 on Pot8o's. At Ipswich, June 29th, he walked over for a subscription of 25gs. each (seven subscribers), for all ages. At Swaffham, September 23, at 8st. he won 50l. for horses, &c. four-mile heats, beating Sir C. Sedley's Ratcatcher, 5 years old, 8st. ; Sir C. Bunbury's Tycho, 4 years old, 7st. 2lb. ; and Sir J. Moore's Vestal, 4 years old, 7st. 2lb.—5 to 2 on Pot8o's. At Newmarket second October meeting, he won a subscription of 5gs. each (thirteen subscribers) for four year olds, 7st. 7lb. ; five, 8st. 6lb. ; and six 8st. 13lb. B. C. beating Lord Foley's Laburnum, 4 years old ; Lord Clermont's Il'mio, 4 years old ; Mr. Pigott's Humbug, 5 years old ; Lord Abingdon's Barbiniola, 4 years old ; Mr. Vernon's Rasselas, 5 years old ; and Mr. O'Kelly's Freeholder, 6 years old:—2 to 1 against Humbug, 5 to 2 against Pot8o's, 3 to 1 against Laburnum, and 6 to 1 against Il'mio.

At Newmarket first spring meeting, 1779, Pot8o's won 50l. for horses, &c. rising six years old, 8st. 7lb. D. C. beating the Duke of Grafton's Caractacus, and Sir J. Moore's Houghton:—6 to 4 on Pot8o's. On Tuesday, in the second spring meeting, he walked over B. C. for the Clermont cup, for four-years old, &c. On Wednesday, he won the 140gs. for

five-year olds, 8st. 4lb.; six, 8st. 12lb.; and aged, 9st. 2lb. B. C. beating Sir J. Shelly's Comet, 5 years old; the Duke of Grafton's Tickler, 5 years old; and Mr. Vernon's Prince, 6 years old:—even betting on Comet, and 6 to 4 against Pot8o's. On Saturday, he won a subscription of 25gs. each (six subscribers), for four-year olds, 7st. 2lb.; five, 8st. 6lb.; and six, 9st. B. C. beating Mr. Vernon's Pastorella, 5 years old; the Duke of Bolton's Greybeard, 4 years old; and Lord Ossory's Muse, 4 years old:—3 to 1 on Pot8o's. In the first October meeting, he walked over B. C. for the cup, for four-year olds and upwards. On Monday, in the second October meeting, at 8st. 8lb. he won a sweepstakes of 300gs. each, 100gs. ft. B. C. (three subscribers) beating Lord Foley's Laburnum, 5 years old, 7st. 12lb.—even betting. On Wednesday, he won the 140gs. for six-years old and aged horses, &c. 8st. 7lb. B. C. beating Mr. Vernon's Freeholder, aged:—4 to 1 on Pot8o's.

At Newmarket second spring meeting (Monday) 1780, Pot8o's 8st. 2lb.; Lord Derby's Laburnum, 7st. 9lb.; and Mr. Stapleton's Magog, 8st. 7lb. in a sweepstakes of 200gs. each, B. C.—Laburnum walked over, and divided the stakes with Pot8o's. On Tuesday, he walked over B. C. for the Clermont cup. On Wednesday, he won the 140gs. for five-year olds, 8st. 4lb.; and aged, 9st. 2lb. B. C. beating Mr. O'Kelly's King Fergus, 5 years old; and Lord Ossory's Dorimant, aged:—even betting on Pot8o's, 2 to 1 against Dorimant, and 4 to 1 against King Fergus. On Thursday, he won the jockey club purse, for horses, &c. 8st. 7lb. each, B. C. beating Mr. Shafto's Tandem, aged:—3 to 1 on Pot8o's. In the first October meeting, he walked over B. C. for the cup. On Tuesday, in the second October meeting, at 9st. he won a sweepstakes, 200gs. each, h. ft. B. C. beating Lord Derby's Laburnum, 8st.; and Lord G. H. Cavendish's Reputation, 6st. 12lb.—Dictator, 8st. 7lb. paid:—7 to 4 on Laburnum, 5 to 2 against Pot8o's, and 6 to 1 against Reputation. On Wednesday, he walked over B. C. for the 140gs. On Thursday, he won a subscription of 10gs. each, (fifteen subscribers) for horses, &c. aged, 9st. 2lb. D. C. beating Sir C. Davers's Woodpecker, aged; and the Duke of Grafton's Tandem, aged:—6 to 5 on Woodpecker, 2 to 1 against Pot8o's, and 5 to 1 against Tandem.

At Newmarket first spring meeting,

1781, Pot8o's 8st. 7lb. won a sweepstakes of 200gs. each, h. ft. (seven subscribers) B. C. beating Sir C. Davers's Woodpecker, aged, 9st.; Lord Derby's Guildford, 5 years old, 7st. 7lb.; Lord Rockingham's Copperbottom, 4 years old, 7st. 2lb.; and another:—6 to 4 on Pot8o's, 5 to 2 against Woodpecker, and 5 to 1 against Guildford. On Thursday, in the second spring meeting, he walked over B. C. for the jockey club purse. On Saturday, at 9st. 4lb. he won a sweepstakes of 200gs. each, h. ft. B. C. (four subscribers) beating Sir C. Davers's Buccaneer, 5 years old, 8st. 7lb.—7 to 4 on Pot8o's. And in the same meeting, Lord Grosvenor challenged for the whip, and named Pot8o's; but the challenge not being accepted, the whip was delivered to his Lordship. On Tuesday, in the first October meeting, at 9st. he received 230gs. compromise from Lord Clermont's Dictator, 8st. 5lb. B. C. 500gs. h. ft. And on Wednesday, he was named for the 140gs. B. C. against Hollandoise, &c. and received 85gs. to withdraw.

At Newmarket Craven meeting, 1782, Pot8o's won the Craven stakes of 10gs. each, for two-year olds, 6st.; three, 8st.; four, 8st. 9lb.; five, 9st. 1lb.; six, 9st. 5lb.; and aged, 9st. 7lb. from the Ditch to the Turn of the Lands, beating Lord Clermont's Hollandoise, 6 years old; the Duke of Cumberland's Iö, 3 years old; Mr. O'Kelly's Mercury, by Eclipse, 3 years old; Mr. Turner's Quinze, 4 years old; and nine others, which were not placed: amongst whom were Mr. Vernon's Thesaurus, Mr. Walker's Cabal, Mr. Douglas's Crookshanks, the Duke of Grafton's Twilight, Capt. Bertie's John-a-Nokes, and the Duke of Queensberry's Drowsy:—6 to 4 against Pot8o's, 6 to 1 against Hollandoise, and 10 to 1 against Iö. On Monday, in the first spring meeting, he won 50l. for six-year olds, and aged horses, 8st. 7lb.; all others 8st. R. C. beating Sir J. Lade's Laburnum, aged; and Sir J. Shelly's Clandon, 5 years old; 4 to 1 on Pot8o's. On Tuesday, in the second spring meeting, he walked over B. C. for the Clermont cup. On Wednesday, he walked over B. C. for the 140gs. On Thursday, he won the jockey-club purse, 8st. 7lb. each, B. C. beating Sir C. Davers's Buccaneer, 6 years old; and Mr. Walker's Mercury, by Dragon, 6 years old:—5 to 1 on Pot8o's. And on Saturday, at 9st. 4lb. he won a subscription of 25gs. each, (six subscribers) B. C. beating Lord Clermont's Hollandoise, aged, 9st. 4lb.; and Lord Ossory's Alar-

ick, 4 years old, 7st. 2lb.—3 to 1 on Pot8o's.

At Newmarket second spring meeting, 1783, Pot8o's beat Sir J. Lade's Nottingham, 10st. each, B. C. for the whip, and 200gs.—2 to 1 on Pot8o's.

Pot8o's was a stallion at Oxcroft Farm, near Balsham, Cambridgeshire, (the same place as Sweetbriar, Mambrino, Sweetwilliam, Justice, and Protector.) In 1784, he covered at 5gs. and 10s. 6d.; in 1785, 1786, 1787, and 1788, at 10gs. and 10s. 6d.; 1789, &c. twenty mares (besides those of his owner), at 21gs.; in 1796, ten mares (besides those of his owner) at the same price; and afterwards at the Upper Hare Park, near Newmarket, ten mares (besides those of his owner), at 10gs. and 10s. 6d.—He served but few mares besides Lord Grosvenor's.

Pot8o's died in Mr. Golding's stud, the Upper Hare Park, early in November, 1800, aged 27.

POULTICE. A soft mass of ingredients, calculated either to soothe an inflamed or ulcerated part by the mere effects of warmth and moisture, or to produce some effect by its stimulus.

Common Poultice.

Take of Bran, a quarter of a peck;
Water, a sufficient quantity.
Boil for ten minutes; and then thicken it properly with linseed meal. Add lastly,
Hog's lard, three ounces. Mix.

Or,

Take of Fine pollard, half a peck;
Linseed meal, two pounds and a half;
Boiling water a sufficient quantity. Add lastly,
Hog's lard, two ounces. Mix.

Fermenting Poultice.

Boil a quantity of brewer's wort, and stir it into as much oatmeal as will properly thicken it. Add, lastly, a tea-cupful of yeast.

This is well adapted for putrid ulcers or mortified parts.

Saturnine Poultice.

Add to the common poultice,
Extract of lead, three drachms or half an ounce.
Mix them well together.

Or,

Take of Acetated ceruse (sugar of lead), one ounce;
Boiling water three quarts. Add Bran and linseed meal, enough to make the whole of a due consistence.

A *suppurative poultice* may be made by stirring a sufficient quantity of common turpentine into some of the common poultice.

An *anodyne poultice* may be prepared in the same way, by adding a sufficient quantity of tincture of opium. In this case, probably the lard had better be omitted, as tending to prevent the free access of the principal ingredients to the skin. Indeed an abundance of grease or oil in poultices is a common error in their composition.

These remedies admit of being varied in a still greater degree by similar means.

POWDER-FLASK. A copper flask is preferable to any other. The ingenious Baron de Berenger, a few years since, shewed me a flask of his own invention, so contrived, that in case of ignition while pouring the gunpowder into the barrel, nothing but the mere charge would become ignited. The article was not so complete as the Baron wished, and I have not learned whether he has since perfected his invention.

PRICKED. The under surface of the horny covering of the foot is unavoidably exposed to numberless injuries from sharp bodies penetrating its substance, which may happen in various ways, from nails, pointed flints, glass, &c. The shoe being partly torn off, and then stepped upon, may produce it; but the accidental puncture by a nail during shoeing is one of the most frequent causes of these accidents. Injuries of this kind are proportioned in their effects according to the parts punctured, and not entirely to the depth of the wound: a knowledge, therefore, of the anatomical structure of the foot is necessary to enable us to form a prognosis, as well as to establish a proper method of cure. A puncture through the fleshy frog, even to the vascular portion, is not productive usually of such serious consequences, as an apparently more superficial opening made through the centre of the sole, which may penetrate the capsular ligament, and either produce anchylosis or destroy the animal.

Whenever a puncture takes place, of sufficient depth to penetrate to the bony connexions (which may be ascertained by examination with a probe), and synovia escapes, the external opening should be enlarged; but it should be attempted to close the internal opening at once, by the application of the actual cautery, not to the immediate surface of the capsular ligament, but to the skin directly over it.

If, however, this treatment has been neglected, and suppuration has actually taken place, the cautery should be omitted : but the action of the part may yet be attempted to be altered by the application of milder stimulants introduced by means of a brush : as diluted muriate of antimony with oil may be lightly penciled over the outer edges of the capsular orifice ; on which may be placed a pledget moistened with tincture of myrrh, or tincture of benjamin, &c. ; and any mild digestive may be laid over all as a defence. If the inflammation be considerable, bleed at the toe, and imbue the whole foot in a poultice. A very deep posterior puncture may extend itself into the flexor tendon or its sheath, and is always productive of very great irritation and inflammation. In such case, enlarge the opening, and if the wound be seen immediately after the accident, introduce any very mild stimulant, as the warm tinctures : but if the accident have occurred a day or two, and the inflammation be considerable, bleed at the toe, and place the foot in a saturnine poultice. When suppuration comes on, watch its progress, moderate the inflammation, give a free exit to the matter, and remove any horn that becomes detached. And as the life of these tendinous parts is inconsiderable, at each dressing a little of any of the above warm spirituous applications may be introduced, which will assist the healing ; or, if a sloughing of any portion be unavoidable, will tend to assist its separation. A puncture of the sensible sole must be treated in a similar manner, remembering in every instance that caustic, or highly stimulating liquids, should never be introduced, as is often done, except under particular circumstances, which will be noticed. The introduction of tincture of myrrh, tincture of benjamin, or a mild solution of vitriol, &c. at the moment of the accident, is admissible ; because it may gently stimulate the part to the adhesive inflammation ; and if even suppuration be inevitable, the mildness of such applications cannot aggravate the process.

But the most usual cases of punctures are those which arise from a wrong direction of a nail in shoeing, in which it either presses on or actually wounds the sensible laminae. This is commonly known to the workman at the time, by a peculiar sensation arising from the different resistance occasioned ; or otherwise is detected by the flinching of the horse ; when, if the nail be immediately removed,

no ill consequences follow, unless the injury be considerable ; and even in this case, were but a little common honesty practised, the serious evils that frequently follow these punctures might be commonly prevented. Were the nail immediately redrawn, the opening enlarged, and a little spirituous balsam of any kind introduced, it would very frequently heal immediately after ; and even should it proceed to suppuration, still a depending orifice is made for the evacuation of the matter, and extensive detachment of horn prevented. But when a smith, in shoeing, considers the horse not actually pricked, though he may be conscious that the nail has taken a wrong direction, or is driven too high, he is apt, from laziness, to let it remain ; and sometimes, even when he is aware that the nail has penetrated the inner surface of the horn, and wounded the vascular parts, he is often then not sufficiently candid to acknowledge it. The offending nail, therefore, even in such case, is allowed to remain, and, according to the extent of the injury, the inflammation becomes considerable the same night, or perhaps not till two or three days after. In such cases, as suppuration proceeds, the confined matter spreads around, detaching a portion of the fleshy from the horny sole, more or less considerable, and, at last extending upwards, it finds itself an exit by an opening at the coronet. In proceeding this course, the inflammation does not always confine itself to the parts nearest the exterior surface, as the sole and sensible laminae ; but sometimes, when not assisted by an artificial opening, it extends to parts less vascular, and whose action not being of that nature to make them immediately throw off the injury by forcing the matter outwards (as is done by parts more vascular), sinuses form inwards, and the disease then becomes *quittor*. Fortunately, however, the vascular action of the sensitive sole and laminae being extreme, the matter usually proceeds outwards, and finds an exit at the coronet.

It may therefore, in pursuing this subject, be stated, that at any time when a horse becomes lame within a week after he has been shod, if the origin of it be hid in any obscurity, the shoe should be always first removed, and the foot gently struck all over with taps of the hammer. If the lameness springs from this source, and any part be injured by one nail in particular, at that part the stroke will occasion the horse to flinch. If this fail

to detect the evil, pinch the toe and quarter round with the pincers, which, if the mischief arise from a prick, will readily point out the affected part by the pain felt there; and under this spot matter will have surely formed. Proceed in such case immediately to pare away the horny sole till it be very thin, when, on close inspection, if the paring be done within two or three days from the prick, a dark coloured fluid will ooze from one of the nail holes; but, if a longer period has elapsed, a purulent matter will appear. By a proper opening evacuate this, and then carefully examine the extent of the injury by the probe, as how far the fleshy and horny soles have become separated from each other, for to the same extent must the horn be removed; not, however, taking the whole away the first day, but completing the removal the second. No greasy matter should be applied over the denuded sole, but a pledget of lint, slightly moistened with compound tincture of benjamin (frier's balsam), or tincture of myrrh, may be laid on; and any mild defensive dressing may be applied over this.

When matter has proceeded to evacuate itself by the coronet, exactly a similar plan must be pursued; the original wound below should be traced and opened, so as to give a free exit to the pus. And in all these cases, when the symptomatic fever rages high, bleed, give physic, and treat in every respect as under inflammation. Perfect quiet is absolutely necessary in every instance of puncture; the slightest exercise irritates, and should be avoided. A shoe should be made so as to "*lie off*" the injured parts, and should only be very lightly tacked on with four nails unclenched.—*Blaine*.

PRICKET. A male deer of two years old that begins to put forth the head.

PRICKING. Tracking a hare by the marks of her feet.

PROGNOSTICS OF THE WEATHER. The success of the chase must always depend on the weather; and therefore the following prognostics will be interesting to the sportsman:—

Clouds.—When there are two different currents of clouds, especially if the lowest flies fast before the wind, and these appear in hot weather, in the summer, they portend the gathering of a thunderstorm.

When thin whitish clouds fly swiftly in the air under those that are thicker, and when small scattered ones appear in clear weather, *rain*.

When a general cloudiness covers the sky above, with small black fragments of clouds, like smoke, driving underneath, *rain* is not far off, and will probably be lasting.

If a black cloud is seen in the west about sun-setting, and when, at any time, such clouds arise suddenly in that quarter, *rain*.

When clouds are formed like fleeces, dense towards the centre, and very white at the extremities, with a bright and blue sky about them, they are of a frosty coldness, and will soon fall, either in *snow*, *hail*, or hasty showers of *rain*.

Against heavy rain, every cloud rises larger than the former, and all of them appear in an increasing state:—this is perhaps most remarkable on the approach of a thunder storm; after the vapours have been copiously elevated, suspended in the sky by the heat, and are highly charged with the electrical fluid, small pieces of flying clouds augment and assemble together, until, in a short time, they cover the sky: as this collecting of the clouds out of the air, is a certain forerunner of rain, so, when they decay and resolve themselves into air, it is a sure symptom of fair weather.

When clouds are streaming within the canopy, and small ones enlarge themselves; when they are large, and shaped like rocks or towers; when waterish clouds are on the tops of mountains, and small, rugged, livid ones near the sun, especially at its setting, they all prognosticate rain. Clouds, with white summits and livid bases, foretel thunder; and two such clouds, rising on either hand, sudden tempests.

If clouds are seen to breed high in the air, in thin white trains, like locks of wool, they denote that the vapour, as collected, is irregularly spread by contrary winds above; and the consequence will soon be a wind below, and probably rain with it.

Small and white clouds, high and light, and when mountains are free from clouds, high and light, are both symptoms of fine weather.

Wind.—Whirlwind, settled fair. Continuing in the north-east three days without rain, *fair* for eight or nine days; going backward, *rain*; when it veers hastily about to several points of the compass, rain quickly follows. When the wind makes a whistling or howling noise, it is as sure a prognostic of rain as the wind can afford. A *brisk* south wind,

dry. Wind may be expected from that quarter or the opposite, if the clouds, as they come forward, seem to diverge from a point in the horizon. Wind from north-east to north-west, fair; from south-east to south west, rainy. A week's fair weather, with a southerly wind, drought; an easterly wind the fore part of summer, dry summer; westerly the latter part of summer, dry autumn.

Dew.—A heavy dew, fair. If it vanishes suddenly or early, rain. When the dew lies plentifully upon the grass after a fine day, another fine one may be expected to succeed it; but if, after such a day, no dew is upon the ground, and no wind stirring, it is a sign that the vapours ascend, where they will accumulate, and must terminate in rain.

Vapours.—A misty morning, and the mist falls, a hot day; if the mist rises, rain. If general before sun rise, near the full of the moon, fine weather.

Where there are high hills, and the mist which hangs over the lower lands in a morning draws towards the hills, and rolls up their sides until it covers their tops, there will be no rain.

To judge correctly of the appearance of a fog, it is necessary to be acquainted with the nature of the country, as, in some places, if the mist hangs upon the hills and drags along the woods, instead of overspreading the level ground in a morning, it will turn to rain. The contrary, when it comes down from the hills and settles in the vallies.

There is commonly either a strong dew or a mist over the ground between a red eve and a gray morn; but if a red morning succeeds, there is no dew.

If a white mist in an evening or night is spread over a meadow through which a river passes, it will be drawn up by the next morning's sun, and the day afterwards will be bright.

When a rainbow appears in the morning, rain; in the evening, fine. The frustrum of a rainbow, rain; predominantly red, wind; green or blue, rain; appearing in boisterous weather in the north, fine.

Lightning without thunder, after a clear day, is a sign of the continuance of fair weather.

Sky.—When those vapours which the heat of the day exhales from the earth are precipitated by the cold night, then the sky is clear in the morning; but if they still remain in the air, rain may be expected.

A dark thick sky, lasting for some time, without either sun or rain, changes to a fair clear sky before it turns to rain.

When a lowering redness spreads far upwards from the horizon, either in the morning or evening, it is succeeded either by rain or wind, frequently by both; and when a fiery redness, with rugged clouds, extends towards the zenith in an evening, a high wind from the west or south-west, attended with rain, follows; when the sky is tinged with a sea-green colour near the horizon, when it ought to be blue, rain will continue and increase; when of a dead blue, it is abundantly loaded with vapours, and will be showery.

When the canopy is high, fair; low rainy; orange coloured in the morning, rain; deep blue ground, fair; pale blue, rainy.

One observation is general, we believe, all over Europe—"the evening red, the morning gray, are sure signs of a fair day;" and it is founded upon this circumstance, that if the abundance of vapours denoted by the red evening sky descends in dew, or is otherwise so equally dispersed in the air that the morning shall appear gray, a fine day may be expected from that equal state of the atmosphere.

If in a morning some parts of the sky appear green, between the clouds, whilst the sky is blue above, stormy weather is quickly approaching.

Sun.—Rising orangy, rain; rising red and fiery, wind and rain; cloudy, and the clouds decrease, certain fair weather; rising dimly, drizzly. If the sun's rays breaking through the clouds are visible in the air, it is a proof that the air is sensibly filled with vapours, which reflect the rays to the sight, and these vapours will soon produce rain. When there is a haziness aloft in the air, so that the sun's light fades by degrees, and his orb looks whitish and ill defined, it is one of the most certain signs of rain.

Sun setting foul, rain; red, wind or rain; blue, rain; dusky, streaked with red, storm; purple, fine; bright, fine; when the sun appears white at setting, or goes down into a dusky bank of clouds, it portends the approach and continuance of bad weather.

Moon and Stars.—When the moon and stars grow dim in the night with a haziness in the air, and a ring or circle appears round the moon, rain is at hand.

If the moon looks red, it is a sign of wind; if pale and dim, of rain; if white

and of her natural colour, with the sky clear, of fair weather.

Should the moon be rainy throughout her course, it will clear up at the ensuing change, and rain will probably fall in a few days after and continue; if, on the contrary, the moon has been fair, and at the change it rains, fine weather will, in all likelihood, be restored about the fourth

or fifth day of the moon, and be of some duration. When the moon is bright with sharp tips, fair; new moon not appearing till the fourth day, rainy month; the lower horn of the new moon sullied, foul weather before the full; the middle, storms about the full; the upper horn, foul about the wane. Saturday's moon, rainy month.

But four nights old (for that's the surest sign)
With sharpened horns, if glorious then she shine,
Next day, not only that, but all the moon,
'Till her revolving race be wholly run,
Are void of tempests.

DRYDEN.

Atmosphere.—Cold after rain, rain; cold in summer, rain; warm in winter, rain; sultry in summer, thunder; heavy, fair; light, rain; moist, rain; dry, fair.

Rain.—Sudden rain seldom lasts long; coming on gradually and when the air grows thick by degrees, and the sun, moon, or stars, shine more and more dim, it is likely to continue six hours. Beginning with a high southerly wind and the wind subsides, rain for twelve hours or more, and sometimes continues until a strong north wind clears the air; beginning before sun-rise, will end before noon; a shower before sun-rise, a fine day usually succeeds; beginning an hour or two after sun rise, a rainy day; setting in wet between eleven and twelve o'clock, a rainy afternoon; clearing up about that time, the afternoon fine; cold wind after rain, more rain; a squall, or rain, or hail, settled fair; a rainy Friday, the same weather on Sunday; and a wet sabbath is frequently followed by a daggly week.

Sounds, such as bells, noise of waters, beasts, birds heard distinctly from a great distance, portend rain. If the earth, or any fenny places, yield any extraordinary scents, or any disagreeable smells arise from drains, rain. A white frost, rain within three days; the more than usual sinking of rivers, presages rain. The speedy drying of the surface of the earth

denotes a northerly wind and fair weather; and its becoming moist, southerly wind and rain; for the air sucks up all the moisture on the surface, even though the sky be overcast, and that is a sure sign of fine weather; but if the earth continue damp, and water stand in shallow places, no trust should be put in the clearest sky; for, in this case, it is deceitful.

Animals.—If cattle or sheep feed greedily and faster than ordinary when it rains, it is a sign of the rain's continuance; and when sheep skip and play wantonly, rain is at no great distance. In the mountainous parts of Derbyshire, called the Peak, the inhabitants observe, that if the sheep wind up the hills in the morning to their pasture, and feed near the tops, the weather, although cloudy and drizzling, will clear away by degrees, and terminate in a fine day; but if they feed in the bottoms, the rain will continue and increase. Geese and ducks more noisy, and washing and diving more than usual, rain; cock crowing in the middle of the day, and peacock squalling much, rain; kites hovering high in the air, fine weather; owls screaming frequently in the evening when foul, fair and frosty; when larks rise high and sing long, fine:—Bloomfield has beautifully noticed the soaring of the lark:—

When music waking, speaks the skylark nigh:
Just starting from the corn she cheerly sings,
And trusts, with conscious pride, her downy wings;
Still louder breathes, and in the face of day
Mounts up, and calls on Giles to mark her way.
Close to his eyes, his hat he instant bends,
And forms a friendly telescope, that lends
Just aid enough to dull the glaring light,
And place the wand'ring bird before his sight:

Yet oft beneath a cloud she sweeps along,
 Lost for a while, yet pours her varied song ;
 He views the spot, and as the cloud moves by,
 Again she stretches up the clear blue sky :
 Her form, her motion, undistinguished quite,
 Save when she wheels direct from shade to light,
 The flutt'ring songstress a mere speck became.

The redbreast singing loud in the open air is an indication of fine weather ; faintly, under cover, rain. Swallows skimming the surface of waters, rain : so long as they keep aloft after their prey, the sky is serene ; but when they descend and flit along the surface of the earth or water, rain is not far off. A drought, of three months' duration, broke up at the summer solstice, in 1775 : the day previous to the rain falling, the swallows flew very near the ground, which they had never done during the whole period of the dry weather. Sparrows chirping much in a fine morning, rain ; and the chaffinch being loud in his call, or note, is a pretty certain signal that wet is fast approaching.

Dogs are said by some to be particularly sleepy, and to eat grass, before rain ; but grass is a salutary vomit which nature prompts them to take at all times, when their stomachs require such an evacuation ; of course, it is not an unerring proof that the approach of rain alone drives them to seek this remedy. Moles throwing up more earth than usual, and its being small and dry, and their appearance sometimes above ground, rain. Worms creeping in numbers out of the ground, rain : and from the same principle that they, as well as moles, are sensible of the access of something new in the atmosphere, and to the surface of the earth. Frogs appearing of a golden hue, fine ; dusky colour, rain : and toads, in an evening, crawling over the road or beaten path, where they are seldom seen, but when restless from the expectation of approaching rain. Fishes are supposed to be affected, since they cease to bite freely, when rain is depending. All sorts of insects are more stirring than ordinary against rain. Bees are in fullest employ, but, if likely to rain, confine their industry to where they can reach their hives before the storm comes on ; when they fly far abroad, and stay out late, fine. When the common flesh flies are more bold and greedy, rain ; when small flies flock together in great numbers about the beams of the sun a little before it sets, fine. Ants bustle more than usual, move their eggs to dry

places, and then retire to their burrows, before rain falls. Gnats playing in the open air, heat ; when they form a vortex in the shape of a column, it announces fine weather ; when they collect and dance in the shade, showers ; and when they sting much, cold and rain. Spiders crawling abroad, rain. Bats flying more numerous and more early in the evening, fine. Glow worms appearing in unusual numbers, fine.

Most vegetables expand their flowers and down in fair weather, and close them again before rain ; this is visible in the down of the dandelion, and eminently so in the flowers of burnet, the opening and shutting of which is the countryman's weather glass, in some parts of England, for the following day :—if the flowers are close shut, rain ; spread open, fair.

The stalk of trefoil grows more upright and swells against rain ; similar, although perhaps not so sensible, is the effect on other plants. That vegetables should be affected by the same causes that affect the weather is very conceivable, considering them as so many hygrometers and thermometers, consisting of an infinity of air vessels (and which are visible in the leaf of the vine, scabious, &c.) by which they have an immediate communication with the air, and partake of its moisture and heat ; hence it is that all wood, even the hardest and most solid, from the vapours early insinuating themselves into the pores, swells in moist weather, especially that which is lightest and driest.

Chronic pains being more violent than usual, rain in summer, frost in winter. A disagreeable languor is generally felt before thunder.

A serene autumn denotes a windy winter ; a windy winter, a rainy spring ; a rainy spring, a fine summer ; a fine summer, a windy autumn : but it is very rarely that the seasons succeed each other in the same tenor for two years together. It has been remarked, that, if at the beginning of the winter, the south wind blow, and then the north, it portends cold ; but should the north wind first blow, the winter will be mild. A hot and dry September, a cold spring ; sum-

mer moist and cool, a hard winter: if walls that used to be damp are peculiarly dry at the commencement of winter, a hard winter may be predicted, for it shews a dry air, which, in winter, is always joined with frost. The early arrival of woodcocks, fieldfares, and other birds of passage, as they prove the cool tempera-

ture of the weather from whence they came, are also said to predict a cold winter in this country. The cuckoo, from its coming early, denotes that a hot summer will follow. Acorns and haws in plenty, a long severe winter. Nuts plentiful and the broom and almond tree full of blossom, foretel an abundant harvest.

Mark well the flowering almonds in the wood,
If od'rous blooms the bearing branches load;
The glebe will answer to the sylvan reign,
Great heats will follow, and large crops of grain.

DRYDEN.

Animals are affected by rain, wind, &c. and in a variety of instances, afford notice of their approach.

The leech, kept in a common eight-ounce phial, three-fourths filled with water (changed once a week in summer, and twice in winter), and covered with a bit of linen rag, is a sure prognosticator of the alterations in the weather. The following are its indications:—In serene weather, it lies rolled up at the bottom, in a spiral form. When it is about to rain in the forenoon, it creeps to the top, and remains there, till the weather is settled. Previous to wind, it keeps in rapid motion, and seldom rests, till it begins to blow hard. If a remarkable storm of thunder and rain is to succeed, it lodges some days before continually without the water, and is very uneasy and convulsed. In frost, as well as in clear weather, it lies at the bottom; and in snow or rain, it keeps at the mouth of the phial.

In the account of animal barometers, this anecdote is remarkable. A gentleman, some few years since, brought a pointer dog, from South Carolina, who was a prognosticator of bad weather.—“Whenever I observed him (says his

master) prick up his ears in a listening posture, scratching the deck, and rearing himself up, to look over to the windward, where he would eagerly snuff up the wind, though it was the finest weather imaginable, I was sure of a succeeding tempest; and this animal was grown so useful to us, that whenever we perceived the fit upon him, we immediately reefed our sails, and took in our spare canvas, to prepare for the worst.”

It is a sign of rain, when the soot collected round pots or kettles, takes fire, in the form of small points, like grains of millet, because this phenomenon denotes, that the air is cold and moist.

The moon is supposed to have influence on the weather. The following table, ascribed to the illustrious astronomer, Dr. Herschel, is constructed upon a philosophical consideration of the attraction of the sun and moon in their several positions, respecting the earth; confirmed by the experience of many years' actual observations, and will, without trouble, and with great truth, suggest to the observer, what kind of weather will follow the moon's entrance into any of her quarters.

NEW OR FULL MOON.	SUMMER.	WINTER.
If it be <i>new</i> or <i>full</i> moon, or the moon enters into the <i>first</i> , or <i>last</i> , quarters at the hour of 12 Or between the hours of	Very rainy	Snow and rain.
2 and 4	Changeable	Fair and mild.
4 . . 6	Fair	Fair.
6 . . 8	{ Fair, if wind N. W. } { Rainy, if S. or S. W. }	Fair & frosty, if N. or N. E. Rainy, if S. or S. W.
8 . . 10	Ditto	Ditto.
10 . . Midnight . . .	Fair	Fair and frosty.
Midnight . . 2 . . .	Ditto	{ Hard frost, unless wind S. or S. W.
2 . . 4	Cold, with freq. showers	Snow and stormy.
4 . . 6	Rain	Ditto.
6 . . 8	Wind and rain . . .	Stormy.
8 . . 10	Changeable	Cold, rain if W. snow if E.
10 . . Noon	Frequent showers . .	Cold, with high wind.

In extracting these remarks it may not be amiss to observe, that every season has its peculiar characteristic, and it is asserted by an intelligent observer, that the same augury which in a fair season foretels fair, will, in a rainy one, presage wet weather; therefore the characteristic of the season ought to be pointed out before the quality of the weather can be prognosticated.

PROPORTIONS OF POWDER AND SHOT. The quantity of powder and shot which constitutes the correct load or charge for the fowling-piece, is a circumstance which ought to be duly impressed on the mind of every shooter, and to which, I am inclined to think, not sufficient attention is generally paid. On trial, it will be found that all guns shoot the strongest the first discharge, or, in other words, when they are perfectly clean, and that the force decreases in exact proportion as the piece becomes foul; hence the necessity of occasionally wiping out the barrel during a long day's shooting. There is also a certain proportion of powder and shot which will exactly suit every fowling-piece; and to ascertain this should be the first object with all new guns. If a piece be overloaded with powder, the shot will scatter very much, and but few pellets will strike the object; whereas, if an insufficient quantity of powder be used, the shot will not be driven with sufficient force. Yet, it is more than probable, that a trifling variation will be found in all guns; or, to speak more plainly, it will be a difficult matter to find two pieces, though of the same

length and calibre, which require precisely the same charge. A very good method of ascertaining the proper load for a fowling-piece is by firing at sheets of paper at given distances, and the progressive result will guide the shooter in the increase or decrease of either the powder or shot, or both.

On investigation it will probably be found, that the general error in loading the fowling-piece, is using too much powder, which not only very much scatters the shot, but renders the recoil almost insupportable,—it is quite a mistaken notion to suppose that a distant object will be better reached with a large load of powder, or that the force of the shot is thus increased; as it will be found, on experiment, that those pellets which strike the mark are not so strongly driven as when a reduced, but a correct, portion of powder is used, to say nothing of the scattering of the shot, by which a small object will generally be missed. Hence it is highly necessary that the correct charge should be ascertained, and uniformly adopted.

PROVING GUN BARRELS. See FOWLING-PIECE.

PTARMIGAN. See GROUSE.

PULSE. This momentary increase of capacity in the artery (says Blaine) whereby its diameter is enlarged, is called its pulse; and the more frequent are these dilatations in it, or the less numerous, so is the pulse quicker or slower. The circulation being slower in all large animals than in small, the standard, i. e. the healthy pulse of the horse, is from 45 to 50;

in the human from 68 to 75 ; and in the dog from 90 to 110. In young animals, the weakness of the system, and its irritability are considerable, hence they have a much quicker pulse ; the colt's pulse is from 60 to 65 ; the human infant's beats more than 110 : this gradually lessens to the adult period, when it follows nearly the standard we have noticed. As the heart of a large animal has a longer way to send its blood, and its resistance is consequently increased, so it takes a longer time to accomplish its contraction ; and thus there is not only a difference between the different species of animals, but between individuals of the same species as they vary in size ; from which, the smaller the horse, the quicker will be the pulse.

As very few active diseases can exist in the body without disturbing the circulation, by either accelerating, retarding, or interfering with its regularity ; so the pulse has been resorted to as furnishing a criterion of the nature and severity of the disease ; not altogether invariable or arbitrary, but sufficiently so to deserve the most serious attention of the veterinarian, who will find it, in cases of danger and obscurity, frequently his only practical guide. To a due consideration of the state of the pulse, not only the immediate state of the disease itself, but many surrounding circumstances, must be taken into the account. A cold temperature will lessen the circulation ; a particular irritability of the system in some horses quickens their pulse ; and the action of fear materially influences it, for which reason great caution is necessary to avoid alarming the animal, or the pulsating vessel may present a wrong indication. The circulation being universal, and the motions of the blood being uniform, it follows not only that the pulse may be felt in every part of the body, but that the pulsations are synchronous. It is, therefore, of little importance where the pulse is felt, provided we have the opportunity of pressing the pulsating artery against some hard body, or of actually embracing it between the finger and thumb ; which, however, is seldom to be done. Bartlett recommended the pulse to be felt by the leg, by the carotids, or by the heart itself. Mr. Clark describes it as most easily felt at the origin of the temporal artery at the base of the ear.

A *full strong pulse*, where the resistance to the pressure of the fingers is very considerable, giving a bounding stroke, and evidently betokening an increase of

the diameter of the artery, seldom exists in the diseased horse. Some natural excitements may bring it on, as lust, exercise, &c. The full pulse of the horse, under the highest inflammatory affections has always some confined vibratory hardness, and never gives the full bounding feel, present in these cases in the human : thus, though the pulse presents a much more unerring criterion of the state of the disease than that of man, yet the analogy is by no means perfect between them. In treating therefore on diseases, whenever the term *full pulse* occurs, it must be considered as intended to convey the above idea only.

A *hard pulse*, with increased frequency, is the most common in the inflammatory affections of the horse, in which case the arterial action is stronger, with diminished diameter of vessel. It is detected by the peculiarity of feeling, like a cord vibrating under the finger, and not like the full undulations of an overcharged vessel. This vibratory hardness, with increased frequency, is the usual attendant on the active stages of visceral inflammations. In the more early stages of peritoneal inflammation of the intestines, or red colic, it is the great characteristic between that and the spasmodic colic or gripes : for in the latter, although after a few hours' continuance there is often some hardness in the pulse, it is always accompanied, when purely spasmodic, with a degree of fulness also, unknown to the other. This pulse is common to all inflammations of parts less essential to life, as of the cellular membranes, muscles, skin, &c. when sufficiently violent to affect the constitution. It accompanies the early stages of bad catarrhal affections, and occasionally of pneumonia also ; but in the former it usually exhibits more frequency than in the latter.

The *wiry pulse* is a very important modification of the hard, in which the sensation is contracted from that of a vibrating cord to that of a jarred wire, whence its name of wiry, thready, &c. It is commonly accompanied with increased frequency, but by no means invariably so ; and is often present in the protracted stages of visceral inflammation, and in some few it accompanies them from their outset. It appears to be the common consequence of the former pulse, and thus succeeds to it so frequently in the secondary or protracted stages of all inflammatory affections of magnitude ; particularly of such as commence slowly.

The *oppressed pulse* is also a modification of the hard pulse, and appears the consequence of the opposing efforts of the muscular and elastic portions of the artery ; the efforts of the one appearing to be employed to restrain the distension forced on the other by a congestion within some part immediately concerned in circulation. It is from this cause that it is so common to the active stages of pneumonia, or inflammation of the lungs ; and it is probable that, when it is present also in other visceral affections, it arises from the secondary effect produced on the respiratory organs. When the difficulty is in a certain degree removed to the transit of the blood through the right side of the heart, by abstracting a large quantity of it, and thus removing the congestion ; it is remarkable how this oppressed pulse, creeping, labouring, and often slow, will rise into a more full, free state, but still with remnants of its parent hardness remaining ; and as long as such alteration is produced by bleeding, it is prudent to pursue it.

A *small pulse* is usually present in all cases of great debility, and is generally attended with increased frequency. When it is very small and thread-like, it shews that the debility is extreme, and prognosticates a fatal termination of the existing disease, the heart and arteries attempting to make up by quickness what they want in strength. If with this degree of smallness it vary in its regularity, or intermit, it is even more certainly a fatal prognostic. We must be careful not to be misled by a small *oppressed* pulse frequently present in inflammation of the vital organs, particularly of the chest, to mistake this for a pulse of debility. The distension of an artery may be so great as to overcome its contracting power, as any elastic body may be distended beyond its tone or capability of recovery ; hence a small pulse is not always a sign of general debility : for in inflammation of the vital organs, this distension of the vessels frequently takes place to such a degree as to prevent their natural contraction ; and a small pulse is by this means produced : but if the over-distending column be removed by copious bleeding, the over-stretched muscular coat recovers its tone, and can contract on its contents ; and thus, in such cases, the pulse is found to rise on bleeding. The bladder, we know, under long retention of urine, becomes so distended as to be incapable of contracting on its contents,

and, unless it be artificially emptied, the muscular coat will give way and burst. It is therefore probable, that an inflamed part is not in a state of increased strength, though it is of increased action, but on the contrary ; for as the vessels are preternaturally distended, they are in consequence weakened : hence, in some local inflammations, or where the vessels of a part only are under this state of increased action, topical bleeding, by emptying those particular vessels, will often prove highly useful ; while, on the contrary, general bleeding may, in the same case, be prejudicial, because, by weakening the system in general, it must still further weaken those particular vessels, and render them less able to contract. We may, therefore, learn that instances do occur where diminishing the general strength may augment the inflammation.

A *quick pulse* usually denotes irritability in the system ; but there may be natural or common causes for such quickness of pulse ; as youth, diminutive size, fatigue, a hearty meal, or a particular temperament ; but when none of these natural causes are present, great quickness of the pulse proves a diseased irritability of the vascular system, and often a want of power also. But its indication becomes very different as it is accompanied by fullness or smallness. When the frequency of the pulse is considerable, with an increase of strength in the action of the artery, it may be gathered, from what has already been said, to betoken inflammatory action, general or local.

A *slow pulse* may be occasioned by pressure on the brain from the effect of accidents, or from congestion, as in lethargy, sleepy staggers, epilepsy, &c. It may also be brought on through the medium of the stomach by various substances taken in. White and black hellebore, aloes, digitalis, hemlock, and whatever excites nausea, decreases the frequency of the pulse in the horse as in the human. But unfortunately, in the horse, our means of exciting this sensation are usually limited to such matters as are in themselves sources of great irritation, and hence hurtful. Neither is a simple alteration in the frequency all that is necessary. To a beneficial end we should render the pulse soft also, without which a slow pulse may retain its inflammatory base, as we witness in the lethargy of staggers.

A *soft pulse* is in all its characters the

reverse of the hard, the full, or the oppressed. It is frequent at the decline of inflammatory affections, and usually shews the cessation of the inflammatory diathesis; thus, after the hot fit of fever is removed, the pulse, from being hard, becomes soft. Suppuration, as a termination of inflammation, also produces it; and whenever there has been great local inflammation, and pus forms, the slow pulse is generally present.

A *regular pulse* is sometimes found under very diseased affections; but it is usually increased in its fullness or smallness, or in its hardness or softness: a regular pulse, with a proportionate fullness, is one of the strongest marks of health; as an irregularity may be occasioned by organic affection; that is, by a peculiar formation of parts, or some disease about the heart, as ossification of its valves, or of the larger vessels.

Irregularity in the pulse is a mark of great irritability, and when not arising from any organic affection, it is a mark of great debility also. Inflammation of the heart is usually accompanied by great irregularity in the pulse, with extreme oppression and smallness; the heart contracts several times, and then stops till more blood be sent to it. An *irregular*

pulse, in fever, shews great danger: it usually accompanies mortification and gangrene; and when inflammation of the lungs terminates in this way, this pulse is usually present. A very peculiar irregularity of the pulse is also present when a serous fluid is thrown out into the chest after these inflammations; in which cases, besides its intermission, the pulse appears as though undulating through a bladder of water. This pulse should be particularly noticed, as, when once felt, it need never be forgotten.

PURGING HORSES. See PHYSICING.

PURLIEU. All that ground near any forest, which, being anciently made forest, is afterwards, by perambulations, separated from the same, and freed from that servitude which was formerly laid upon it.

PURLIEU - MAN. One that has land within the purlien, and forty shillings a year freehold; upon which account he is allowed to hunt or course in his own purlieu, with certain limitations.

PURSE - NET. A net in the form of a purse, used for taking both hares and rabbits. The purse-net is frequently used by the poacher for catching hares, instead of the wire snare; it is also used with the ferret in netting rabbits.

Q

QUAIL. This bird is an inhabitant of nearly all the countries in the world, and is every where esteemed excellent food. In appearance it is so much like the partridge, as to be in some places called the *dwarf partridge*; and in the manners of the two species there is a great resemblance. They form their nests and rear their young nearly in the same way. They are, however, in many respects very different. Quails migrate to other countries; they are always smaller; and have not a bare space between the eyes, nor the horse shoe, or crescent, figure on the breast. The eggs too are less than those of the partridge, and very different in colour. Their voices are unlike. Quails seldom live in covies, except when their wants unite the feeble family to their mother, or some powerful cause urges at once the whole to assemble, and traverse together the extent of the ocean, holding their course to the same distant lands. They are much less cunning than the partridge, and more easily ensnared, especially when young. Their disposition is not so gentle as that of the partridge.

Quails are found in most parts of Great Britain, but not very numerously, and they are seldom seen in the midland counties. It appears that one circumstance which determines their abode in this

country is plenty of herbage ; since, in a dry spring, when grass is consequently scarce, few quails are to be met with.

The females lay ten or twelve eggs, in the incubation of which they are occupied three week. The eggs are whitish, but marked with ragged rust-coloured spots. Quails have been supposed, but without foundation, to breed twice in the year.

It is said that quails usually sleep during the day concealed in the tallest grass ; lying on their sides, with their legs extended, in the same spot, even for hours together. So very indolent are they, that a dog must absolutely run upon them before they are sprung ; and, when they are forced upon the wing, they seldom fly far. Quails are easily drawn within reach of a net, by a call, imitating their cry, which is done with an instrument called a quail pipe, which is rarely, if ever, used in this country, having been superseded by the fowling-piece.

Quails visit this country in spring, and generally leave it again in the latter end of September ; they are sometimes found here later, and, if the accounts are to be depended on, instances are not wanting, where they have remained the whole year. They are supposed to winter in Africa. If to the circumstance of their generally sleeping in the day, is added that of their being seldom known to make their first annual appearance in the day time, it may be inferred that they perform their journey by night, and that they direct their course to those countries where the harvest is preparing, and thus change their abode to procure a subsistence. On their arrival at Alexandria, such multitudes are exposed in the markets for sale, that three or four may be bought for a medina (less than three farthings.) Crews of merchant vessels have been fed upon them ; and complaints have been laid at the consul's office by mariners against their captains for giving them nothing but quails to eat.

With wind and weather in their favour, they have been known to perform a flight of fifty leagues across the Black Sea in the course of a night ; a wonderful distance for so short-winged a bird.

Such prodigious quantities of quails have appeared on the western coasts of the kingdom of Naples, in the vicinity of Nettuno, that a hundred thousand have, in one day, been caught within the space of three or four miles. Most of these are taken to Rome, where they are in great request, and are sold at high prices. Clouds of quails also alight in spring along the coasts of Provence ; especially on the lands which border on the sea. Here they are sometimes found so exhausted, that for a few of the first days they may be caught with the hand. In some parts of the south of Russia they abound so greatly, that, at the time of their migration, they are caught by thousands, and sent in casks to Moscow and Petersburg.

It seems that great quantities of these birds are imported from France. They are conveyed by stage coaches ; about one hundred in a large square box, divided into five or six compartments, one above another, just high enough to admit the quails to stand upright. Were they allowed a greater height than this, they would soon kill themselves ; and even with this precaution the feathers on the top of

the head are generally beaten off. These boxes have wire on the fore part, and each partition is furnished with a small trough for food. They may be forwarded in this manner, without difficulty, to great distances.

With respect to these birds having an instinctive knowledge of the precise time for emigration, we have a very singular fact in some young quails, which had been bred in a state of confinement from the earliest period of their lives, had never enjoyed, and therefore could not feel the loss, of liberty. For four successive years, they were observed to be restless, and to flutter, with unusual agitations, regularly in September and April; and this uneasiness lasted thirty days at each time. It began constantly about an hour before sunset. The birds passed the whole night in these fruitless struggles; and always on the following day appeared dejected and stupid.

Quails are birds of undaunted courage, and their quarrels often terminate in mutual destruction. This irascible disposition induced the ancient Greeks and Romans to fight them with each other, as the moderns do game cocks. And such favourites were the conquerors, that, in one instance, Augustus punished a prefect of Egypt with death for bringing to his table one of these birds which had acquired celebrity for its victories:—so at least it is recorded; but, when the character of Augustus is taken into consideration, the account appears scarcely entitled to credit.

Sometimes combats, we are told, were performed between a quail and a man; the quail was put into a large box, and set in the middle of a circle traced on the floor; the man struck it on the head with one finger, or plucked some feathers from it: if the quail, in defending itself, did not pass the limits of the circle, its master won the wager; but if, in its fury, it transgressed the bounds, its antagonist was declared victor.

The Chinese use this bird, it is said, whose body is very hot, to warm their hands in cold weather; and among the French "*Chaud comme un caille*—warm as a quail," is a proverb.

Quails, where they can be found, afford good practice to the young shooter: they fly straight and seldom far; and thus many shots may be obtained with little difficulty.

The length of the quail is seven inches and a half, breadth fourteen; bill dusky; the feathers of the head, neck, and back, are a mixture of a brown ash-colour and black; the crown of the head divided by a whitish yellow line, beginning at the bill, and running along the hind part of the neck to the back; above each eye is another similar coloured streak; a dark line passes from each corner of the bill, forming a kind of gorget above the breast; the chin, throat, belly, thighs, and vent, dirty yellowish white; the scapular feathers, and those of the back, are marked in their middles with a long light yellow streak, and on their sides with ferruginous and black bars; the coverts of the wings are reddish brown, elegantly barred with paler lines, bounded on each side with black; the quills are lightish brown, with small rust-coloured bands on the exterior edges of the feathers; the breast is of a pale rust-colour, spotted with black, and streaked

with pale yellow ; the tail consists of twelve short feathers, barred with black and very pale brownish red ; the legs are pale brown.

The female differs from the male in having no black spots on the fore part of the neck, breast, and side feathers, and from the colours being less vivid. Some of them have a long spot of brown beneath the throat.

QUALIFICATION. See **GAME LAWS.**

QUALIFICATIONS appertain, in a particular degree, to the subject of racing upon the turf, and are used in a certain signification. Plates of 50l. are given at numerous places of sport, to be run for on certain conditions ; some by colts, and fillies of three years old ; some four years old ; others five and six ; and, lastly, for horses of all ages and qualifications. The precise meaning of which is, that a horse equal in age to one or more of his competitors, may be very superior in qualifications ; in which case, it becomes necessary and equitable to bring their abilities more upon an equality, by so increasing the weight which one is to carry above the standard of the other, that there may be left very little probability of deciding upon the certainty of superiority in speed, when the impartial and judicious adjustment of weight is so properly fixed, as to leave an equal hope and expectation of winning the prize for which they are to start. To render such mode the less liable to objection, it is mostly the custom to say in the advertisements, a winner of one plate in the present year to carry 3lb., the winner of two, 5lb., and of three, or more, 7lb. extra.

QUARTER, FALSE. The defect so called in the hoof of a horse, is the renovated part of what has been by some accident previously destroyed ; and this effort of nature being inadequate, in its regeneration, to the original formation, the quarter of the heel, in its growth, acquires a kind of spongy puffiness or elasticity, accompanied by a cleft or crack, which prevents a perfect and undivided union with that part of the hoof uninjured, constituting a tender weakness, as well as a permanent blemish, not to be obliterated during the life of the horse. Notwithstanding which, much depends upon the management during the time the original injury remains in its infant state. A wanton destruction of parts, by the too hasty and injudicious interposition of caustics and cutting knives, frequently does more mischief in twelve hours, than nature, with all her powerful endeavours, can repair in as many months. When by

these, or other means, a false quarter cannot be avoided, it should be occasionally attended to during the progress of its growth : the uneven prominences should, when becoming luxuriant and irregular, be kept down by gentle rasures with the rasp, and the surface, the cleft, and surrounding part, be plentifully moistened with friar's balsam, tincture of myrrh, or some such applicable substitute, as may give it a gradational hardening, and effectually reduce the irritability of the parts affected. To relieve the ill-effect of this inconvenience to a certain degree, a bar-shoe may be so carefully constructed, as to shield the tender and weaker part of the hoof from pressure ; and this can only be done by forming the shoe of such thickness, as to admit of its taking its bearing equally from the sound parts of the hoof, about an inch or two on each side the seat of injury, with strength sufficient to prevent a chance of its indentation upon the tender part intended to be protected.

QUARTERS. The fore and hind parts of a horse are frequently so called ; for instance, such a horse is beautifully formed in his fore quarters, but he is exceedingly ill made behind ; and some are well proportioned in the gaskins, the hip, the rump, and hocks ; but are ill formed and low before. The fore quarters include the head, neck, breast, withers, and fore legs, to the girths ; the hind quarters comprehend the hips, thighs, hams, hocks, and hind legs.

QUEST. Seeking for game.—Harriers are said to have *got a quest* when they give tongue after coming upon a trail. The term is also applied to spaniels in covert.

QUITTOR, QUITTER, OR QUITTERBONE. An ulcer formed between the hair and hoof, usually on the inside of a horse's foot. It arises often from treads and bruises ; sometimes from gravel, which, by working its way upwards, lodges about the coronet. If it is only superficial, it may be cured with cleansing dressings, bathing the coronet every day with lime water, and dressing the sore with precipitate. But if the matter

forms itself a lodgment under the hoof, there is no way then to come at the ulcer but by taking off part of the hoof; and if this be done well, the cure may be effected without danger.

When the matter happens to be lodged near the quarter, the farrier is sometimes obliged to take off the quarter of the hoof, and the cure is then for the most part but palliative; for when the quarter grows up, it leaves a pretty large seam, which weakens the foot: this is what is called a false quarter; and a horse with this defect seldom gets quite sound.

If the matter, by its confinement, has injured the coffin bone, which is of so soft and spongy a nature that it soon becomes carious, it will be necessary to enlarge the opening, cut away the spongy flesh, and apply the actual cautery, or hot iron pointed pyramidically. Afterwards dress the bone with dossils of lint dipped in tincture of myrrh, and the

wound with the green or precipitate ointment. When the sore is not enlarged by the knife, which is the best and less painful method, sublimate is generally applied, or blue vitriol powdered and mixed with a few drops of oil, which is said to act as effectually, and with less pain. During the operation of these caustics, the foot should be kept in a common soft poultice. If sinuses form, they must be laid open, and afterwards stimulated by some sharp remedy. Mr. Denny recommends the following:

Take of Corrosive sublimate;

Red precipitate, in fine powder, of each equal parts;

Honey, sufficient to form a paste.

He directs the wound afterwards to be dressed with common digestive ointment; and advises pressure to be made by a bandage round the coronet.

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RABBIT is the well known little animal bearing a striking similitude to the hare in its formation; but is much less regarded as a luxury for the table. This animal is remarkably prolific; and Pliny observes upon the fruitfulness of animals, that nature has kindly befriended man by causing those to be most prolific that possess the least power of mischief, and are the most proper for his food. The instance he produces is the pigeon, which, from one pair, may increase in four years, to 14,760. Linnæus makes the number amount to more than 18,000. Rabbits will breed at six months old, bear seven times annually, and bring five young ones each time: supposing this to happen regularly during the space of four years, and that three of the five young at each kindle are females, the increase will be 478,062. The calculation has been made from eight young at each of the seven kindles, amounting to 1,274,840; but this is much too high, as five at each kindle is perhaps beyond the average for the wild rabbit. Under the first statement, being overstocked with these animals might justly be feared; but man, birds, and beasts of prey make great havock among them.

The rabbit prefers a temperate and warm climate, and endures great cold with difficulty. In Sweden they are obliged to be kept in houses. Spain is their native country. The island of Minorca is very remarkable for its growth of rabbits, but their flesh is so rank, that, instead of serving as food, they are an incumbrance to the people inhabiting it; who, to prevent the land from being over-run by them, are called upon by the Governor to give their assistance two days in every year to destroy them; and in the time of the Romans they once proved such a nuisance in all the Balearic islands that the inhabitants were obliged to implore the aid of a military force

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from Augustus in order to exterminate them. Many parts of England abound with them. Lincolnshire, Norfolk, Suffolk, and Cambridgeshire, where the soil is sandy, are the counties in which they are most plentiful; whence immense numbers are brought for the supply of the London market. In Yorkshire, there are many warrens, and the rabbits supply the markets of Hull, York, and the neighbouring towns; and the skins are sold to the furriers at Stanford Bridge and Malton, who sell their wool to the hat manufactories of London and Manchester. Their fur is a material much used in making hats, and the English possess a peculiar mode of cutting the fur from the pelt.

The flesh of the rabbit is very good; but the best rabbits are those in covers, where the surrounding fields present a choice of food, which does not happen to those in warrens, where their food is chiefly mosses and the *carex* grass. Turnips are sometimes sown for them on warrens; and in severe weather, in winter, they are frequently fed with turnips. If turnips are pulled and carried on to the warren, from two to three large cartfuls will be sufficient provision for a thousand couple of rabbits for a day; and turnips are the best food in snows, as the rabbits can find them by the scent:—if hay be used, one load will suffice for a like number for the same period.

The rabbit finds it difficult to make its burrow on level ground, the mould being all to be thrown up to the surface; on the contrary, against the side of a steep hill, the animal has no difficulty to encounter; the declivity affords a ready fall for the earth, the work is all down hill, and there are perhaps few sandy or other loose soil'd hills, which would not be more profitable as a rabbit warren, than under any other course of husbandry. In situations where the ground, as well as the soil, is suitable for rabbit warrens, and where sufficient extent of contiguous and unseparate property can be procured, it may be most profitably stocked with rabbits; “for instance (says Mr. Marshall) the hide of a bullock (of some breeds) is not worth more than one twentieth of the carcase; the skin of a sheep may, in full wool, be worth from a sixth to a tenth of its carcase; but the fur of the rabbit is worth twice the whole carcase; therefore, supposing the rabbit to consume a quantity of food in proportion to the size of its body, it is, on the principle offered, a species of stock nearly three times as valuable as either cattle or sheep.” Experience, however, does not bear out these conclusions.

Until of late years, the grey rabbit was the only species; for some time back the silver haired rabbit has been sought after, and has been introduced into many warrens. The fur of the grey rabbit is cut from the pelt as a material for the manufacture of hats, whereas, that of the silver haired one is dressed as fur, and principally exported to the East Indies. The colour is a black ground, thickly interspersed with single white hairs. The skins of the latter of course sell for a higher price than those of the common sort.

The accuracy of persons taking stock upon the warren farms betwixt an incoming and outgoing tenant, is a matter of surprise: they attend for some days the appearance of the rabbits at the mouths of

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their burrows, at dusk and earliest dawn (for in the middle of the day the rabbits keep in their holes;) and the judgment formed from this ocular proof of the apparent number is said to be so well calculated, that upon the destruction of many warrens, it has been established, beyond doubt or controversy, to have been extremely exact.

Warren farmers are sometimes liable to great losses from an epidemical disorder among the rabbits. The spring and summer of 1798 were so favourable to the breeding of rabbits, that the warrens in all parts were judged to have never been more plentifully stocked; but great numbers of the young ones perished by a disorder supposed to have been produced by a continual wet in the autumn. It was infectious; the first symptom was a swelling in the glands of the neck; the rot ensued, and death soon followed.

Some years ago, a gentleman of Sussex, in the neighbourhood of Chichester, tried the experiment of castrating rabbits, which so much increased their size, that, at six months old, when prepared for the spit, they have exceeded six pounds and a half in weight. It is described by him as a most profitable practice; the operation was performed when six or seven weeks old, and, out of three hundred, he never lost one. For proof of utility he frequently left one or two of a litter in their natural state, and uniformly found that those which were cut, at seven or eight months old, were nearly double the weight of the others, although partaking of exactly the same food, and all running about together.

Notwithstanding the similarity of the hare and the rabbit, nature has placed an inseparable bar to their complete resemblance, in not allowing their intermixture, to which they mutually discover the most extreme aversion: there is, moreover, a wide difference in their habits and propensities: the rabbit makes holes in the earth, where it brings forth its young, and retires from the approach of danger; while the hare prefers the fields, and trusts to its speed for safety. This management of the rabbit is alone sufficient to prove it superior to the hare in sagacity. The structure of both is the same, and enables them equally to dig retreats under ground; both are equally timid, but the talents of one being weaker than those of the other, he contents himself with a seat upon the surface of the ground, where he remains perpetually exposed; while the rabbit, endued with superior instinct, digs for himself an asylum in the earth. Their labour is unquestionably the effect of forecast, since domestic rabbits never give themselves the trouble of digging. It has often been remarked, that when a warren is attempted to be replenished with domestic rabbits, both they and their offspring remain, like the hares, upon the surface, and that they never begin to dig holes for their protection until after enduring many hardships, and having passed through several generations.

The rabbit, however, is much inclined to sit upon the ground. Those rabbits which are occasionally met with in the fields, form themselves a seat in which they sit in the same manner as a hare; but they have generally a hole or burrow at no great distance, to which they immediately run on being disturbed.

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In speaking of the instinct of animals in giving notice of alarm to each other, Dr. Darwin remarks, that as rabbits cannot easily articulate sounds, and are formed into societies that live under ground, they have a peculiar method of giving alarm. When danger is threatened, they thump on the earth with one of their hinder feet, and produce a sound capable of being heard a considerable distance by animals near the surface, which would seem to be an artificial signal, both from its singularity, and its aptness to the creature's situation. The rabbits on the island of Sor, near Senegal, do not burrow ; so that we may suspect their digging themselves holes in this cold climate is an acquired art, as well as their note of alarm.

The rabbit lives to the age of eight or nine years, and is capable of procreating at five or six months, and goes with young thirty or thirty-one days. In consequence of the male's unnatural dislike to its offspring, the doe frequently kindles out of the warren. She scratches a small burrow about two feet deep, where she prepares a bed for her young, composed of the fur plucked from her body, and some blades of grass ; which the warreners call the rabbit's nest : here she suckles (which she always does at early morn and late in the evening) her young, and attends them for six weeks. At first, the hole which contains the young rabbits is completely closed up, so that the aperture cannot be readily discovered, during the day ; as the young ones acquire strength, the hole is gradually opened ; and at about the period before mentioned (six weeks) they are able to provide for themselves.

The Wold warreners catch their rabbits with fold nets, with spring nets, and with *tipes*, a species of trap.

The fold nets are set about midnight, between the burrows and the feeding grounds ; the rabbits being driven in with dogs, and kept inclosed in the fold until morning.

The spring net is generally laid round a hay stack, or other object of inducement for rabbits to collect in numbers.

The tipe or trap is a more modern invention : it consists of a large pit or cistern, covered with a floor, with a small trap door, nicely balanced near the centre, into which the rabbits are led by a narrow meuse. It used to be set by a hay stack ; but since turnips are now grown for the winter food, in an inclosure within the warren, the trap is placed within the wall of this inclosure. For a night or two, the rabbits are suffered to go through the meuse, and over the trap, they thus become familiarized to where the turnips are grown ; after that the trap door is unbarred, and the number wanted is taken. In emptying the cistern, the rabbits are culled ; the fat ones are slaughtered, and the others turned upon the turnips to improve.

At the close of the season, the bucks and does are sorted in a similar way ; one male is considered as sufficient for six or seven females ; and the nearer they can be brought to this proportion the greater produce of young may be expected.

Great precaution is necessary in using the traps : should too many rabbits be admitted at once, and the cistern be kept closely covered for a few hours only, suffocation, from intense heat, takes place, and

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the carcasses, at least, are spoiled :—many thousand carcasses have been wasted through this means ; the traps are therefore carefully watched, and when the required number is caught, the mouse is stopt and the trap door fastened. Five or six hundred couples have not unfrequently been killed in one night, and there was once an instance in the Driffield warrrens of fifteen hundred couple being slaughtered.

Rabbits are also taken with the ferret ; which, it is said, was originally brought from Africa into Spain, to free that country from the multitude of rabbits by which it was over-run. When the young rabbits are about half grown, the ferret is used with a line round him ; and, upon seizing one, he is drawn gently back, and holds the rabbit in his mouth ; but this can only be done where the holes have few angles, and are shallow. In winter, the ferret is coped or muzzled, and a small bell tied round his neck ; and afterwards the holes are as silently as possible covered with purse nets, called *flaus*, the ferret is put in the windward side of the burrows, where the person should also place himself, and observe the utmost silence, otherwise the rabbits will retreat to their lower earths, and suffer the ferret to scratch them to death before they will bolt. Hay nets are, however, chiefly used by experienced warreners, who are loath to turn ferrets into the burrows, as it invariably gives the rabbits a dislike to them. The time these nets are set is at day break ; and they let them remain till half an hour before sun rise ; and again, half an hour before sun set, until dark. The warreners drive to the nets with the wind if possible ; a side wind will do, but nothing is done if the wind blows over the net into the creature's face. A lurcher is often used to force the rabbits into the hays.

It is said, that sounding a trumpet in the burrows will make the rabbits start from them ; and some persons smoke the holes with brimstone and orpiment ; this will dislodge them ; but it is a very troublesome and offensive method ; and it is detrimental to the place, as no rabbit will, for a long time afterwards, come near the burrows that have been fumed with these fetid ingredients.

The Norfolk warreners use the following method to destroy kites and other birds of prey : these birds are very shy, and like to settle where they can have an uninterrupted view for some distance ; a naked stump or hillock is their favourite resting place ; the warreners, therefore raise mounds of earth of a conical form in different parts of the warren, and place steel traps upon the summits of these artificial hillocks.

Those who breed tame rabbits for sale keep them in hutches, which should be kept clean. The bucks and does should be kept apart until the latter have kindled, when they are turned to the buck, and remain until the doe runs from him—the general computation is one buck to nine does. The best food is the shortest and sweetest hay, of which one load will serve two hundred couple for a year. Tame rabbits are subject, first to the rot, which is the consequence of too much green food, or when it is gathered with dew or rain hanging upon it. Dry food is the remedy for this distemper. Secondly,

to a sort of madness, when they wallow and tumble about with their heels upwards; this is supposed to be owing to the rankness of their feeding; and the general cure is, the keeping them low, and giving them the tare thistle to eat.

Cartwright, in his *Journal*, whilst upon the coast of Labrador, makes the following mention of the rabbit: "I have got a buck and doe left (says he) of those which I brought from England; and as the latter has run loose about the house all winter, and kindled in a box in the dining room, I have had opportunities of making some observations on her and her young ones. She went twenty nine days with young; the young ones not only came into the world blind, but their ears were also shut, nor could they move them until the tenth day; on the eleventh, they began to see; on the twelfth, their ears were quite open; and on the thirteenth, they could erect their ears. The doe did not continue in the box from the time she kindled her first young one until she got quit of the last, but came out at intervals; nor did she ever after stay with them longer than a minute or two at a time to give them suck, always covering them well up with fur, which she pulled from off her body and sides with her mouth. They have a very singular way of chewing their cud, if it may be so called, *for they receive their own dung into their mouth and eat it.*" This seems a strange account!

RABBIT SHOOTING. See SHOOTING.

RACE COURSE. The form and length of a race course (says Darvill) must depend on the space of ground the neighbourhood may afford; generally speaking, our country courses are most of them round. As four mile heats are not so much run now as they formerly were, a well formed two mile course, or a round course of this length is quite sufficient. In running for most plates, the starting post is also the winning post. This gives the spectators an opportunity of seeing, from the stand, the starting, as well as the coming in, of the horses, and this, at some of our great country meetings, is as much an object of amusement to them, as the running is of interest and consequence to the men of business. At Newmarket, where they do not run heats, and where they seldom run long lengths, most of the courses are straight, or nearly so, which renders them much less difficult to run over, than a round course, both for the horses and jockeys. All the horses trained at Newmarket, stand in or adjacent to the town, which is a great advantage, for, it is a well known fact, that horses give their races more kindly in running to their stables, than in running from them.

But with respect to the making of

race courses, they are sometimes made in the form of the figure 8, or of any other figure that may be convenient, of from one mile to four; fortunately, however, a course not exceeding a mile in extent is not very frequently met with. There are too many turns in a round course of this length. A long striding horse running on such a course is too frequently turning, or if the turns are but few, they are mostly difficult for such a horse to make at his best pace. The little or middle sized hearty horse, that is a pretty round goer, has a short but quick stride, gives his race kindly, is easily held, and is ready at his turns, is the sort of horse most likely to come first on such a course. Indeed, a large, long striding horse, and more particularly a free runner, cannot be got to run in his best form, with safety, round so small an extent of ground as a mile. The owner would be a bad judge who would bring his horse to post to run on so small a course.

In making a two mile round course, the first thing to be considered, after having surveyed the ground, is, whether the horses shall have to run to the right hand or to the left. This will depend on the most advantageous way the ground can be chosen. Should there be a very steep piece of ground, in any part of it, and more particularly should it be in that

part where strong running might likely be made, or, where perhaps with some horses it were proper to be made, to run up such ground would be preferable to running down it, and it would be giving an equal chance to different descriptions of horses; for the greatest part of the ground of a two mile course is mostly flat, which, when not too deep, is an advantage to the long striding horse; but if there is a pretty good hill in it to ascend, the little close made horse, if he has good action, can generally climb it the best; and if, by making a course to run to the left hand, we avoid running down a very steep hill, it would be preferable to have it go in the above direction.

I have already observed with regard to running over a two mile course, that the post the horses start from, is also the winning post; but in order to decide correctly the coming in of the horses, a second post is necessary, and this must be placed immediately opposite, or in a parallel line with, that behind which the judge stands, as one of the principal objects in placing this post here, is its being a fixed point to enable the judge to decide accurately on the smallest part of the horse's head, which may first appear in a line with these two posts. The post I have here mentioned may be called the starting, the winning, or the weighing post; as on a two mile course it answers all these purposes. It is to be observed, that in fixing the above two posts, they are to be so situated on the course, as to divide the best part of the ground into two portions, one of these portions of ground is for the start, the other, which is of far more importance, is for the horses to run in upon. This part of the course should be straight and level; if it deviates at all from the latter, it should be in a gradual ascent to the winning post. The whole of the posts for marking out the ground should be painted white, and must be placed at such convenient distance one from the other, as to admit of each being easily seen by the jockeys in the running; and to prevent them from getting too close to the large posts, the better way is to bank them up from a pretty wide basis, for three or four feet,—such post should be marked accordingly on the top part; for example, when shorter lengths than two miles are to be run.

Supposing the course I am now arranging to run to the right hand, and that there may be rather a difficult turn to

make in it. Instead of such a turn being made by the jockeys laying a little out of their ground sufficiently early for the purpose of making it, as was formerly the practice, and which was not only dangerous, but has often been the cause of disputes on the subject of foul riding, I would recommend the adoption of the following plan, which would not only prevent accidents, but every thing unpleasant which may occur in running for the turn in the old way. The turn had better be made by an additional number of sight posts, which should be placed wide of such turn, sufficiently early so as gradually to form and enlarge the sweep, the whole of the way round, as much as possible. Making a turn in this way will not only be much safer, and prevent disputes, but it will be giving a more equal chance to the very light weights, who are many of them boys, and who are not so experienced in running for a sharp turn, as some of the older jockeys. An experienced jockey, coming well placed to a turn, and having the whip hand, would not, perhaps, feel much delicacy, when in running for it, to lay a young inexperienced jockey boy a little out of his ground here, the old one knowing that half a length got here, is worth two or three in straight running.

I believe, on all courses, there is generally plenty of room for any reasonable number of horses to run abreast; but in the running between the rails, as we here form the breadth ourselves, we should take care to have a clear space between them of twenty-five yards. These rails on each side of the course, should commence at least a quarter of a mile below the winning post, and should be continued two or three hundred yards beyond it. Indeed, the further the rails are continued on all courses, the better.

At such racing meetings as are numerous attended by spectators, there is generally a space of ground of about ten or a dozen yards in width, and about one hundred or two in length, railed in on the right and left of the course for people on foot. This is a very good plan, as it protects them from the horsemen and carriages. In coming in on the right of the course, there should be two distance posts; the first of these posts is to be erected two hundred and forty yards from the winning-post—the second, a hundred and twenty from it. The first of these posts is the distance-post, when the horses are running four miles; the

second, when they are running two miles.

Attached close to, and in the rear of, the winning-post, should be a small wooden stand, erected for the judge to stand in to decide which horse comes first in the race. There should be to each of the distance-posts a similar but a more temporary sort of stand. Each of these temporary stands may be made by putting two posts at a suitable distance in the rear of each distance-post, with a piece of board in the centre; but this board, at each of these posts, should be two or three feet higher than the floor of the judge's stand, so that the man in the distance stand may clearly see the winning-post, and be ready to drop the distance-flag immediately with that at the winning-post.

The stand, or as it is sometimes called, the grand stand, which is erected for the accommodation of the spectators, is generally placed on the right of the course. The under part may be conveniently arranged for the vending of refreshments. It should be built at a distance of from twenty to five and twenty yards in the rear of the rails of the course. The end of this stand need not be in a direct line with the winning-post, but may come within about ten yards of it. The height and dimensions of such stand must, of course, depend very much on the extent or importance of the meeting held in the neighbourhood. Close up to, and in a parallel line with, the rails of the course, and opposite the centre of the grand stand, should be erected a small round building, eighteen feet in circumference, clear of the walls, which should be eighteen feet high. This building being divided by a floor in its centre, the lower part is for a weighing-house (the door of which should face the stand), the upper part is for a stand for the stewards, for whose convenience a communication may be made by a stair case out of the weighing-house, and on the roof there should be a bell to ring for saddling. In the centre of the weighing-house, the scales and weights should be placed. It is the case, at most of our principal meetings, and it should be so at all of them, that one scale should be made in the form of a chair, and suspended the same height from the ground, as the seat of a chair would be, with a half back, made round in the form of an arm-chair; and an iron triangle of proper dimensions should be fixed to the end of the beam, for the pur-

pose of keeping the ropes that are attached to the beam sufficiently extended at the top so as not to interfere with the jockey's head when he is weighing. This would be much more convenient, as he could more readily sit down in this scale, take his saddle and trusses in his lap, and weigh with more dispatch, and with less difficulty, than with scales put up in the common way. There should be seats round the walls of this weighing-house, and pegs for the jockeys to hang their clothes on. Cupboards would also be convenient here, to hold the trusses and small weights, as occasion may require; for there are many jockeys, at several of our country meetings, who are employed to ride for a variety of masters, and sometimes different races for their first or principal masters, which obliges them to vary their weights, and occasionally to shift them from one saddle to another. When the weights do not run high, and a jockey can come to the weight himself, dead weight of course is not wanted. The trusses and small weights, belonging to different trainers, are then left in the care of one of their boys, or any convenient person who may be near at the moment; perhaps they are thrown down in the weighing-house, and are thereby liable to be mislaid or lost; or, not unlikely, some of the shot may be taken out of them. Racing has now become a game of such importance to men of business on the turf, that nothing which regards it should be done in an uncertain, idle, or slovenly manner. These trusses and small weights, when not in use, should therefore be given in charge of the man who attends the scales; by him they should be locked up in cupboards, and he should be made accountable for them to the different persons to whom they may belong.

The space between the weighing-house and the grand stand is to be formed into a yard, enclosed by rails about four feet high. This enclosure should extend ten feet beyond each extremity of the front, observing to leave the gateways in proper positions; that near the judge's stand is for the jockeys to ride their horses through to get to the scales to weigh, and that near the stand, for the horses to pass through in going to the rubbing-house.

By closing the gates here, after the horses are rode into the yard, the people on foot would be prevented from passing in and crowding round the horses, which they are apt to do while the riders are weighing. It may be advisable, at such

meetings as commence early in the spring, or late in the autumn, to cover this yard with a mixture of gravel and sand, which would make it more firm and dry to walk on, in case of much wet. The ground thus fenced in, I shall call the weighing-yard, into which none should be admitted but people of business, such as the stewards of the races, noblemen and gentlemen who own the horses, the trainers, the jockeys, and boys who look after them.

The weighing house and yard being situated and arranged in this way, mistakes cannot possibly happen, if the jockey does but keep on his horse's back after having pulled him up at the conclusion of the heat or race, until he gets to scale, as in going off the course to weigh he must come to, and pass by, the ending or winning post. Indeed it would be unpardonable in a regular jockey to dismount until he has rode his horse past this post in going to the scales. A jockey who is in high practice of riding, is too good a judge to allow such a thing to happen to him, let the scales be placed in whatever situation they may. If he were so unfortunate, through absence of mind, as to commit an error of this kind, I much fear, it would be at the expense of his character; but a gentleman jockey, on a strange course, and who may not have rode many races, may unintentionally fall into an error of this sort, if not directed by the trainer who informs him how he is to proceed when he has pulled up his horse. From want of experience or caution, a gentleman may make this mistake, either by not riding his horse back to the ending post previous to his dismounting to weigh; or, he may, if his orders are not to run for the first heat, pull up within the distance, and if the scales should be placed (as they often are) inside of the winning post, he may, without giving it a thought, ride to them, dismount, and weigh, without even coming to the ending post; he would, consequently, be distanced, but as I have observed, from the way in which the weighing house and the entrance to it is here arranged, nothing of this sort can possibly happen, if the rider will but keep on his horse's back until he gets to the scales.

The ropes which are to be put up across the course, at the commencement of the rails, to shut out people on horseback, who have no business on this part of the course, should be attended by very steady

men, who are to take care to be ready to remove the ropes at the time of the horses' starting and coming in.

After the meetings are over, it will be necessary to have chains put up here, and secured by locks, to prevent horses and carts from going over this part of the ground.

If the ground be diversified with ascents and descents at moderate intervals in a course of two or four miles, I think it rather an advantage, as it gives an equal chance to the little stout horse as to the large very long striding horse. Generally speaking, they all give their races more kindly over such ground, than they would do in running a similar length over a dead flat.

The next thing to notice relative to a course is the rubbing house, or, as it is called by some, the saddling house, being used for both purposes. This building should be erected at a distance of about two or three hundred yards beyond the weighing post. It will here be somewhat out of the noise and bustle of the crowd, and it will be near to where the horses pull up after sweating or running.

The walls of this building should be in height, from the surface of the ground, twelve feet by sixty-four in length, and the space between them, from eighteen to twenty feet. The stalls in this building should be eight feet wide, to give sufficient room to the boys to work on each side of the horses after they have been sweating, and at the time of their being saddled to run. The partitions between the stalls should also be sufficiently high so as to prevent the horses from smelling to each other over them; but there is no necessity for either racks or mangers in any of these stalls. The walls in front of the horses' heads should be boarded, and rings should be fixed there to tie horses up occasionally. Now, as it frequently happens that there are horses from different stables not only going to sweat on the same morning, but most likely at the same time, (as training stables are sometimes at so great a distance from the ground as not to allow of the horses being conveniently scraped at home, and as it would be unpleasant to the trainers for the horses of different stables to scrape at the same time in one rubbing house,) I think the better way would be to divide these eight stalls, by running up a wall in the centre, and thus making two rubbing houses, with four stalls in each, and with doors of the same

dimensions as those in the training stables; and for the admission of plenty of air and light, there should be two large windows in each of these houses, and they should be on the same plan as the lower part of those windows in the training stables.

In the front of this building there should be a piece of ground twelve feet in breadth by the length of the building, walled in to the height of four feet and a half, with rings placed at proper intervals in the walls, for the trainers and riders to tie up their hacks while the horses are being scraped or saddled. The door is to be in the centre of this yard, and to be five feet in width.

RACE HORSE. A horse bred for the turf, or, in other words, calculated for speed. Mr. John Lawrence contends for "the necessity, or at least the utility, of a reserve of thorough-bred horses in this country, on the ground, that, were the species neglected, and suffered to be indiscriminately blended amongst the whole genus, the English saddle horse would, in all probability, become retrograde in quality, and in the course of time would degenerate into the round buttock, gummy carcase, and coarse head, of former days." In fact, examples enough of this degeneracy are always to be seen, he says, in the studs of the different breeders; neither is the number of well-shaped, half-bred stallions considerable, or even sufficient for the demand of the country. In opposition to the idea which some entertain of the propriety of putting an end to horse racing by law, "On the course only (says he) can the worth of this peculiar species of the horse be essayed; and independent of that object, it is scarcely probable that the breed would be kept distinct, or that any very minute attention would be bestowed upon pedigree. It is well known, that not only have varieties of a genus of animals been often blended and lost by neglect, but even arts, and different branches of knowledge, have perished in the same way. From the discontinuance of horse racing, the English thorough-bred horse, the source of almost all that is excellent in the species, might become extinct. Thus the turf is a grand national object, and its votaries are administering, through the medium of their pleasures, to the interest and prosperity of their country.

The speed and continuance of race horses must necessarily be affected and governed, in certain degrees, by the weight which they have to carry; and, reasoning upon that position, it will be

easily conceived, that if two horses be equally matched in point of speed and strength, and put to their utmost exertion for a considerable distance, the horse which carries the least weight, by even only a single pound, must infallibly have the advantage to a certain degree (however small), and possess the ability of going more swiftly and lasting longer than his antagonist. The swifter the pace, and the longer it is continued, the more in proportion will the horse be affected by the weight he carries. It is said, that, in running four miles, seven pounds make the difference of a distance, or two hundred and forty yards, between horses of equal goodness. Weight is therefore regulated with scientific precision upon the turf, and forms a prime consideration in all sporting transactions. The weights carried by race horses vary from the maximum, twelve stone, to a feather, which means a boy of the lightest weight to be found."

The thorough-bred courser, Mr. Lawrence thinks, in a general point of view, the most useful species of the horse, as being applicable to every purpose; which cannot be asserted of any other species. He defines a thorough-bred horse, or racer, to be originally the produce of Asia or Africa, or of the south of Europe. The chief object in breeding a race horse, he thinks, ought to be truth and symmetry in the cardinal points.

As to the "integrity of his blood," he says, "a true racing pedigree, according to the rule of the present time, ought to prove, under the hand of the breeder, that the horse has descended from ancestors of genuine racing blood, without the intervention of a single bastard cross. If the pedigree be long, it is common to take it for granted that there is blood sufficient, although there be no mare mentioned in it, which has proved her blood by her having actually raced; but usually all the horses are reputed runners, or brothers of such. The greater number of mares which have raced contained in a pedigree, the surer and more valuable, no doubt, it must be, particularly if the last mentioned be specified as a reputed racer, or a natural Arabian or barb. A pedigree of one single descent is held sufficient, when the sire and dam are named as reputed and tried runners: otherwise a short pedigree of three or four descents would not constitute a horse thorough-bred, though it might serve for a hunter.



THE BLACK ARABIAN,

collected by the Museum of Hawaii

It is yet easy to conceive (he adds) how liable the pedigree of a horse must be both to error and imposition, and that the best proof of true blood must ever consist in performance. Various accidental bastard crosses have occurred in our racing breed, at different periods, chiefly distant ones; and they are frequently easy to distinguish in the figure of the stock, by a critical eye. The far greater part of those horses brought over to this country, under the general appellation of Arabians, have, I believe, never seen Arabia, or else have been of its inferior breed. They are usually purchased in the Levant, Barbary, or the East Indies, by persons totally unacquainted with horses, or, at any rate, with the peculiar purpose for which such horses are designed; hence a number of inferior and half-bred Arabians have been brought over at a useless expense, to deteriorate, instead of amending, our racing breed, and to bring Arabian blood into disrepute.

Fine and delicate horses, the natives of warm climes, excel in swiftness; the most perfect of these were originally found in Arabia; but they are improvable in their descendants by a more fruitful country. The Arabians tried in England have never proved themselves, in any respect, equal, upon the course, to the English racers, the descendants of their blood. Although the general characteristic of thorough blood is speed, yet the true test is not speed, but continuance; since many common or half-bred horses have been known to possess racing speed, but no instance has ever occurred of its continuance in those beyond perhaps half a mile: the powers of continuance increase in proportion to the quantity of blood; thus three-part bred horses will persevere longer than half-bred, and those got by bred horses out of three-part bred mares will sometimes equal the real racers. Although, amongst horses equally well bred, superior external conformation will generally prevail in the race, yet racing can in no sort be said absolutely to depend on good shape; it depends entirely on blood: for example, take the worst shaped true-bred horse you can find, and the best shaped common horse; let the latter have a fine coat, loose thrapple, high and declined shoulder, length, speed, in fine, all the admired points of the racer (and such common horses are occasionally to be found); let them run four miles, and the bred horse, although out-footed at first, shall always win the race. This principle is so universal, that perhaps it would be altogether

impracticable to find a thorough-bred horse in England sufficiently bad to be beat four miles by the speediest and best common-bred hack. All bred horses cannot race, many of the highest blood having neither the gift of speed nor continuance; many are defective in the material points of conformation, as it happens in common horses.

The usual trial of speed in English racing, is the distance of a single mile; of continuance, stoutness, or bottom, four miles. It has been asserted with confidence, but not proved, that flying Childers ran a mile over Newmarket in the space of a minute; a velocity so immense, that it turns one's ideas to speed in the abstract, or ubiquity. It has, however, been really performed in a few seconds over a minute; an instance of which, within my present recollection, is that of Firetail and Pumpkin.

The distance of four miles was ran by Childers, in 1721, carrying nine stone two pounds, in the space of six minutes forty-eight seconds. This wonderful animal leaped ten yards with his rider, upon level ground; and is supposed to have covered, at every stride, a space of twenty-five feet, which is more than forty-nine in a second. Bay Malton ran four miles over York, in 1763, in seven minutes forty-three seconds and a half. Eclipse ran the same distance over York, in eight minutes, with twelve stone.

After all, what is the cause or basis of that superior speed, endurance, and strength, which distinguish the southern horse? Doubtless a peculiar innate quality of body, which some attribute to the dry and elastic air of those countries where he is bred, but which appears to me not altogether satisfactory. The game, or wild animals of northern climes possess the peculiar qualities of the race-horse, which they lose in a few generations, on being domesticated; their bones becoming soft and spongy, like those of tame animals in general. The race horse is much stronger than the cart or common horse, weight for weight; his substance being of a more solid texture.

We quote the following from Mr. Hind's late publication of Osmer.

"The formation which I conceive necessary to constitute a capital and perfect race horse, does not relate solely to the proportion and symmetry of the whole animal, taken at a glance, although it be a necessary ingredient to perseverance or *bottom* in the individual so formed; but this formation, to be complete, extends

also to the limbs and joints, by which his motions are performed, and his speed is accelerated or retarded; which depends on the particular manner of the limbs being set on—much more than is generally supposed. Yet have most, or all, those things hitherto passed unobserved, or remained unattended to by the generality of sportsmen.

The race horse should be broad, deep, and have great declivity in his shoulders; his quarters should be long and straight; his thighs should be let down very low; his hock should be distinct, far behind, and from him; thence, downwards to the next joint, he should be very short, which part of the leg should not be strait, but stand under him, like an ostrich's leg, with a long, lax, bending pastern; and these, I think, are, in part, the springs of action: such as we perceive in the ostrich, a very speedy bird afoot. But these are not the only requisites necessary to the formation of a perfect race horse; there being as much difference, and as great a nicety required, in the manner of setting on a horse's arm,—which should be at the extreme point of the shoulder bone, as in any part belonging to him, and which contributes as much to the act of extension, or stretch, as does the declivity in the shoulders. Neither is one horse in fifty properly formed at the knee, for racing; nor does one in a hundred of any sort bear a true proportion from the knee to the fetlock-joint, although it be so very material with respect to every action he is to perform.

By the true position of these joints and limbs, the horse is enabled to cover more ground than one that is otherwise formed, even though the length of body be the same in both; and, by describing so much a greater circle, in going, he is enabled, when he extends himself to the full stretch, to acquire a greater purchase of ground than the horse which stands in a more upright position, even though the latter be the longest of the two.

The proper formation of some of the outward acting parts having been described, let us now consider what else is required to make a perfect race horse?—and I answer, a general proportion, length, muscular substance, and a certain elegance of texture, and of the constituent parts of the whole; the nature of which elegance, or what I mean by it is briefly this:—Supposing the condition of two horses to be alike, in all respects, they will always excel each other, according to the particular elegance and formation of those

acting parts, degrees of proportion, of length, and of muscular substance: the want or the possession of either whereof will not only produce their effect in all horses, but a difference also in the very same horses, when tried together on different kinds of ground. And this result of such trials could not be otherwise, I think; for, if a different formation of the parts, &c. and the degrees thereof, be not the cause of difference in the performances, why then, one of these horses of the right and true blood would act alike on all ground whatever, and be just as good, though made like a hog, or without joints: unless some other cause of action in horses can be shewn, beside this virtue of the blood, or the formation of the parts, &c.

The difference in the requisites just named will also account why some very plain horses, that are not well made to please the eye, and so are called “ill-shaped ones,” shall, by reason of a greater length and depth, and a peculiar manner of setting on the acting parts, (*i. e.* the shoulders, as was remarkably the case with Eclipse,) excel others, which, with the same elegance, possess a greater share of muscular substance and proportion, a more noble and lofty forehead, and a finer figure throughout the whole.* Thus, the handsomest and most elegant horse in the world, and of true proportion, too, which wants the proper declivity, length, and gift of circular extension, in those acting parts, may turn out no racer at all.

Again, horses with the same elegance, and a tolerable formation of those acting parts, shall be able, by superiority of muscular substance, and a more general proportion, to excel those which have a little more length and depth in the acting parts; for, by means of this substance and proportion, they will bear to be pressed longer than those who are deficient therein; and so far the old proverb, namely, that all shapes run if of the true blood, may be allowed to be true enough. By way of illustration, the reader is referred to the annexed portrait of that celebrated horse Lottery, whose beautiful, we had almost said perfect, symmetry is generally allowed. Lottery's running at Doncaster, (then called Tinker,) for the Great St. Leger, in 1823, will long be remembered; especially when coupled with his after exploits, particularly his contest with Longwaist, for the Doncaster Cup, in 1825.

* If the forehead be more lofty than the croup, he cannot run well: but, if a strong one, may make a good stager.





When I talk of length and extent in the acting parts, I desire not to be misunderstood, for no horse's legs can be too short.

Greyhound shape.—Now, where is he, who will take upon him to say, that some men are not able to distinguish by the eye this difference of formation betwixt some horses, as well as others can distinguish this same difference betwixt some dogs; though perhaps not quite so readily, because the human eye cannot take in, at one view, the parts and proportion of a being, where one is so much larger than the other. For, whose eye does not inform him, that a greyhound will beat a cur-dog, or that a bred-horse (as it is called) will beat a cart-horse? then, why not allow, that there is a difference betwixt two bred-horses; for he who does not perceive, that many such do differ greatly from each other, I am inclined to think, cannot see at all. Is it not evidence that, although many sorts of dogs are as long as the greyhound, every eye may see that one will excel the other in speed, and that mainly from the curves and segments of circles, which one describes in his shape, and which the other has only in a less degree?

Fine greyhounds have, like fine horses, a general proportion, a certain elegance of parts, of length, and are furnished with long-fibred muscles; their hocks are let down almost to the ground behind, and stand from them; and then, to remedy the want of a long pastern, their feet or toes are made longer than any other dogs' that can be named. It is this very conformation, so obvious in the greyhound, and in some horses, which have wide haunches, that in part produces the effect of speed; and the reason why it is not so manifest to all men in both species, is, because the degrees of this formation do not come so near together in dogs as in horses—that of the greyhound far excelling all others of his kind.

Now, the fine greyhound being remarkably broad, and expanded in the muscles of his thighs, I call this a perfection in him; and so I think it is in horses, though it be but seldom seen. This the generality of sportsmen esteem a fault, and what almost moves my laughter, they call it a *coach quarter*.—So little likelihood is there of any agreement amongst mankind about the proper formation of a race horse, that they have not so much as agreed upon the names whereby to distinguish the different parts thereof, even,

although the muscular expansions ought to be very different in these parts, when we require a faultless horse of any sort.

Hares are made in the same manner, and they can describe a greater circle, and acquire more ground at one stroke than any animal known in the whole world, of their size and length; and that because their quarters are so long, their thighs are so much let down, and the lower part of their hinder legs are placed (as it were) under them, and, to answer the purpose of a long pastern, their toes are made very long. From these causes, I am inclined to think, her springs of action are in part derived—add to this, the blade-bone of no animal runs away into her back with so much declivity as a hare's, and this, I think, enables her to point forward. Again, mark the length from the elbow to the knee of a hare, and the short space there is betwixt that and the next joint; by this length of the arm, and the muscles thereof, she can farther extend her foreparts. So it is in a greyhound, though not, I think, to such a degree; and this formation, in degree, so far appertains to the running horse, that he cannot be called perfect without it, let him be ever so well constituted in every other respect. But the degree of shortness, in this part of the horse, is better considered by the proportion it bears to his other parts, than by any general rule that can be laid down.

Now, it is well known among coursers, that the hare can strike as far at a stroke as the greyhound dog, which is so much longer;—tell me then, are her motions performed by the peculiar formation of the acting parts, and the strength and elegance of her muscles, or by any innate quality, and unknown virtue; or whether, from a similarity in these points, found in all animals that are particularly endowed with speed, there may not be some reason to suppose, that the cause of it is the same in each? and whether it be not highly probable, that the Power who created all animals, has ordained, that the different degrees of speed in different horses, should depend on the very same law as the different degrees of speed in different dogs—I mean the law of their constituent parts, even though you and I should happen not to perceive any difference in such parts?

Of bony horses.—I have often been surprised, and diverted too, with the commendations I have heard sportsmen bestow on horses, for having large bones;

because I think that, on the contrary, depends, in great measure, the excellence we find in what are called stud-bred horses. If, by this expression, substance only was to be understood, it would be quite agreeable to my notion; but what constitutes the great difference (formation of the acting parts excepted) between the Arabian horses, and all others, is, that some of them have, and all should have, to be perfect, larger tendons, or sinews,* and smaller bones, than any other horses not made for speed; for these tendons, muscles, or sinews, happen to be the sole powers of acting in all animals, the bones being the weight to be lifted, and serve only to extend the parts.

Which, let me ask, will act with most velocity, and most perseverance for a time, (all other parts agreeing,) the horse that has a large sinew, and a small solid bone, like ivory, *i. e.* like a stag's bone, or he that has a large bone of a soft spongy kind, with a smaller sinew? for the dimensions of the leg shall, if you please, be the same in both—I should think the former. This solid bone, with a firm sinew, and a fine skin super-induced, where you may see every vein, and can lay your finger nearly between the bone and the sinew, shew that the horse has no thick fleshy muscle intervening, which serves only to retard his speed, and is (like the bone) a dead weight to be carried along with it, and which no way conduces to the strength of the animal.

Limbs proportioned.—Now, this is what I call elegance of parts, which is not confined to the outward texture only, but extends also to the internal constituent parts of the legs; namely, to the bones, sinews, and membranes, which is in part explained already—and to all the ligaments of the joints—and this elegance of the constituent parts shews itself particularly in many horses, where, though the leg shall have a very sufficient substance, and bear a true proportion to the other parts of the body, yet the pastern shall be very lax, as well as very small, both which are very necessary for a perfect race horse, length and laxness serving as springs for the acquisition of ground, smallness contributing to agility, and to perseverance or bottom.

That the smallness of the pastern shall

* That is to say, large in proportion to the bones the animal has to propel along; but not large muscle that obscures the sinew and conceals the bones.

contribute to the stoutness or bottom of the horse, you will say is very strange, and new doctrine, it being generally looked upon as a sign of weakness. This perverseness I cannot help: but, if there were no other argument to support this doctrine, examples enough of horses so made, that were excellent racers, might be brought in defence of it, and I think no body will dispute matters of fact; though I am not quite sure of that. For instance, Cartouch was a remarkable horse, in these respects, which, although but a galloway in size, beat some good sized horses very easily, all carrying eleven stone!

Back sinews.—To explain this doctrine about the smallness of the pastern, as it relates to bottom, we must examine a little the constituent parts of the limbs. To this end, the reader must understand, that in every animal all the difference there is betwixt muscle and sinew is, that the fibres of the first are broad and fleshy, those of the latter, dense, more firm, and drawn into closer contact; whereby the strength of a small sinew becomes greater than the strength of a large piece of flesh (as we vulgarly term muscle, until by hand rubbing, by exercise, hardening the system, and keeping down flesh generally, we convert a great portion of this muscle into sinew). For instance, reader, let us consider, your leg and mine: the hinder part of it, upwards, at the calf, is a fleshy substance, which anatomists have agreed to call muscle; lower down, towards the extremities, this is most compact, and becomes tendinous or sinewy, though it still be a continuance of the same body; and we find it in action capable of bearing its share of work without complaining; whereas, the calves of the legs often do tire and become painful after much walking, or any violent exercise.

Further, I pray you tell me, whether you ever thought a man, who was well formed in all other respects, to have less agility, or less strength, because the small of his leg was very delicate and slender? or, if your leg and mine had been covered with a thick coarse membrane, and composed of loose fleshy fibres, continued down to the extremities, instead of being fine and tendinous, whether you do not think, that such a weight would have been against us, have made us less active, and liable to tire sooner? Just so it is with the horse. But it too frequently happens, when the wise designs of nature

are not fathomed by our shallow capacities, we arraign the skill of the Omniscient Power, and foolishly presume to censure his works, when they are most perfect! *In these things alone, I mean the nature and elegance of their constituent parts, and the due formation thereof, consist the difference between horses of the same and different countries, or betwixt blood and no blood.*

Speed not heritable.—Now, ask the sportsman how it happens, that some of these long pasterned horses perform so notably; he has his answer ready, “why, ’tis in the blood, to be sure, or else these weak cat-legged devils could not run so.” These same sportsmen have another saying, “such a horse shews a great deal of blood”—(that is to say, shews that he has blood *affinity* to the right breed of horses for running).—Surely they think it something mechanical, and visible to the eye, else they could not use this expression; or, do they pretend to discover, by innate knowledge, the innate virtues of the animal? But they mean, if they mean any thing, what I do, when I say such a horse has a peculiar elegance in the texture of the external parts, (which he derives from his Arabian ancestry.)

But Arabian horses, of the very same family, differ as much from each other, both with respect to length, substance, proportion, elegance, and formation of parts, as horses of the same family can do in other countries; and how should it be otherwise? for we plainly perceive here at home, that there often is a great difference betwixt two full brothers, of all kinds or species of animals: pray now tell me, why this should not happen in Arabia as well as in England? For instance, Conqueror and Othello were two full brothers, but one was a king and the other a beggar, with respect both to form and action.* If then the difference in the performance of these brothers did not depend on their different formation of parts, &c. pray tell me, on what did it depend? for the cause of it could not be in the blood, unless you will say this innate quality may appertain to one brother, and not to another; and then, I apprehend, the by-standers will say, you have proved it to be plainly nothing.

* Got by Crab out of Miss Slamerkin; but nine years elapsed between the getting of the two colts, Conqueror being the youngest of the twain; and the same colour as his sire, viz. grey.

A hundred examples of the same kind, and that almost in every family amongst our racing horses, might be brought to show, that two equal brothers are hardly ever produced; and when a difference does happen, it will be just the same thing in its consequences (if the formation of parts, &c. be at all concerned in action) whether it happen to an Arabian horse or any other. Why this difference should be betwixt two full brothers is not at all material for us to know; it is sufficient for my purpose that it does happen: it may arise perhaps from a dissimilitude of parts in the horse and mare, or from a similitude of some parts tending to some extreme in both; it may arise also from some violence or impression on the womb, whilst the foetus is in a soft state, or from some defect of constitution in the mare, or the seed of the horse.

If I could have a horse formed in the manner, and with all the advantages, I have here named, I should be proud to use him as a stallion, were I a breeder, without making any inquiry after his family or country. But, shall the brother of this horse, because he is brought from the mountains of Arabia, and of the very best reputed high blood (as it is called), who is deficient in all or most of these respects, (no matter from what cause,) induce me to breed from him, for the sake of his family and his country only? and that a great difference does occasionally happen in the same, and in every family of horses, I suppose, no man will deny. But it is said with great truth, that the virtue of the blood in him that was no racer, may produce a racing son; to this I agree, it may, when the son has happened to acquire a formation of parts, &c. different from the father's, by the help of his mother's constitution. In that case, indeed, an ill-formed horse, that could not run himself, may, and often does, beget a better racer than himself, by the assistance of better parts derived from, and similar to those of, the dam.

On this point, Virgil observed, eighteen centuries ago, that your good judges of breeding require a stallion that is a good runner himself, as well as of true courage, or else the country he is brought from is of little consequence, nor even his lineage, although he may derive it from the immortal gods.

It is owing to this opinion of the virtue of the blood, and what the sportsmen call a proper cross, coupled with an entire inattention to, and want of knowledge

amongst the breeders, as to the laws of nature, and proper conformity of the several parts, necessary to make a race horse, that so very few good ones are occasionally to be found in this kingdom. For, is it not a truth to be seen every day, that the very best reputed bred horses and mares in the kingdom cannot run at all? yet they still serve to breed from for the sake of the blood, or the cross. As to the mares in general, we seldom know any thing of them but their pedigree; yet we talk of the goodness and badness of stallions, as if the mare had no concern in the quality of the produce; and what is worse than this, most men who keep a stud, generally entertain a good opinion of their own mares; so, when these do not produce good colts, they as generally impute the fault to the horse who got them: from such prejudices, some of our best horses often fall into unmerited disesteem as stallions.

But, for the sake of argument, it shall be allowed, that the excellence of horses consists in being of the true blood; what then? is it of any use to the breeder, when experience shews it will not hold good in two full brothers? But he cannot, with common sense, believe, nor have any reason to suppose, that the virtue of that high blood or spirit, call it what you please, which was of no effect in the father, and which would not entitle him to be a racer, should produce a better effect in the son, when this virtue is considered in the light the sportsmen use it (that is) independently of form and matter.

These observations, which I have made on the different families of race horses, and betwixt those of the same family, have made me conclude, that neither the virtue of the blood, or spirit, breed, pedigree, nor proper crossing, will enable one of them to race, unless he has the proper formation along with it.

The difference betwixt the Arabian horses, and all others, consists in nothing else, but a peculiar elegance and formation of parts, and in having a greater share of muscular power; that is, the fibres of these muscles being drawn into closer contact, animals are thereby enabled to move quicker, and with more force, by reason of their membranes and teguments being composed of a firmer and less bulky substance, and their bones being smaller, of more solidity, and occupying less space, they are and can be more easily acted upon by such tendinous or muscular force; and that for a greater duration of time,

with less fatigue to these acting powers. Then, consciousness hereof gives them courage.

Of Wind.—In the next place, it may be asked, what gives wind to horses, and whether the causes of that too are discoverable by the eye? To this I answer, that clear wind, or long windedness, depends on the very same principles in all horses, and in all other animals, as agility of action, and ability of perseverance; namely, the nature of their constituent or component parts, particular diseases in these animals not coming into the question; for elegance of parts is no other than wind, and strength, and agility, at least it is productive of them. And, as the elegance of the external texture in the horse is a certain standard or test of a similar elegance throughout the whole internal contexture, so far the cause of thorough-windedness, as it is called, may be said to be distinguishable to the eye.

For instance, the stud-bred horse will gallop twelve miles within the hour, without the least fatigue, or being at all blown, but the cart horse with such a jaunt is fatigued, and tired, and choaked; the reason whereof, I think, is obvious to every man, namely, because his eye enables him to perceive, that one, from the nature and difference of the component parts, acts with ease and facility to himself, and the other does not.

Now, may not the man be thought mad, who says, the difference in the facility of respiration betwixt these horses, depends in one upon form and matter, and in the other not so? and is not he equally absurd, who says, that the difference of wind, in two bred horses of different families, does not depend on form and matter also in both, because the degrees of elegance in the component parts of these two are not obvious to his eye, as they are betwixt the bred horse and the cart horse. For, if we could suppose two horses to be alike in health and condition, and formed and constituted alike in other respects, he that has the most capacious thorax or cavity of chest, will undoubtedly have the best wind; and this is confirmed by actual occurrences, and notorious matter of fact, and would be known to all men, if they were not blindly partial in their observation of things and events.

If a horse has superior stretch, he does not tax his lungs so highly—does not put them to so much labour, as another with finer lungs (larger), but whose fatigue at going a quick pace occasions

greater working of the frame, and its contents, the lungs particularly.

If to this it is objected, that many running horses, with the chest less ample, have occasionally excelled others, with a more capacious one, I allow it is very true, but insist, at the same time, that it is easily accounted for, without appealing to hidden causes. For example, one horse of a less ample chest, with great length and extent in his acting parts, is to contend with another much shorter in these respects, of a more ample chest; but the organs of respiration may be more fatigued in the last than in the first, because the long horse, who goes within his rate, may act with ease and facility to himself, whilst the short one, which is forced to go at the top of his speed, and yet not able to keep company with the other, is of course distressed and fatigued in every part.

For the reasons here given, the Arabian horses and their descendants, when properly chosen, are preferable to all others, whether you are to be carried a mile or a thousand, either for pleasure, expedition, or safety, let the weight be what it will, nor have any other horses such true courage, or calmness of temper, nor can they bear fatigue with equal fortitude, as our severe discipline of training will in some measure help to shew. Not only are they best for riding, but for drawing also, if you breed them to size, and inure them to it early, as it is the custom to do with our English horses that are designed for drawing; for our country horses, whose acting powers, or sinews, are oppressed with coarse fleshy membrane, thick teguments, and large spongy bones, will on this account be much sooner fatigued and tired with their own weight, than the Arabians, even though their acting powers were equal in strength to the Arabian horses, which they by no means are, and that from a difference in the texture of the muscular and tendinous fibres before noticed.

Just so it is betwixt the southern hounds, and those we make use of to hunt the fox; and yet I have heard the huntsmen talk just as ridiculously of the blood of fox hounds, as if it was something independent of the formation and elegance of their parts, as the sportsmen do about the blood of horses. But in this the skilful huntsman differs from the sportsman, in one respect; for the first very often gives way, or knocks his hound on the head, without trying him at all, if he does

not approve his figure; whereas, the sportsman always trains, if he likes the blood, let the horse be ever so defective in the formation of its parts, &c. But if he would consider his racer merely as a horse, and in the same mechanical light, as he distinguishes his hunter from his cart horse, and would wave this preternatural quality, which he understands by the word blood, it would save him much expense, and many disappointments. For, although the eye of man may perhaps not always determine, with such precision, as for us to say, 'this horse shall make a capital racer,' yet I will be bold to say, that the eye of the same man can most frequently determine with so much certainty, (I mean amongst stud-bred horses) as for him to say, 'this cannot run at all.' But this last assertion will be credited by very few sportsmen; for this plain reason, namely, because the high opinion they entertain of their own judgment will not suffer them to assent to a truth, which they themselves cannot perceive; for all men fancy they understand horses better than all others.

And now, since I am dealing in maxims, give me leave to add one more, which you may depend on for truth, and lay down as a certain criterion of the sportsman's skill in horses, namely, that the more strenuous an advocate he is for this innate virtue, called blood, so much less knowledge he has of the animal, and which opinion of blood undoubtedly is in him, not a tacit, but an open and avowed acknowledgment of his ignorance of proper shape or conformity of parts; else he would not have recourse to occult and hidden causes, to account for facts that are discoverable by the eye. But the word blood, received in its general acceptance, is found to be extremely convenient to such persons; because it is agreeable to the good old law of custom, from which source the generality of men's ideas are derived; and so, of course, it prevents the youthful sportsman the trouble of making any inquiry into the form or nature of horses. Again, they talk just as ridiculously of bad as they do of good blood; for it is a common saying amongst those sportsmen, that they would prefer to breed from a horse, whose blood they liked, though he could not run, rather than from him that could run well, whose blood they do not like, yet both shall be thorough-bred!

Let us suppose a case:—here are two mares, both originally bred from Arabian

horses and mares, or the descendants of such, which I suppose is all that is to be understood by the term 'thorough-bred horses.' One of these mares is called Duchess, and is got by Whitenose, out of Miss Slamerkin; and, because the produce of this horse has been generally found deficient in racing, they are branded with the infamy of bad blood to breed from; yet Duchess herself was an extraordinary racer. The other of these mares was got by the Godolphin Arabian, the best reputed blood in the world, and called Sylvia. Now, she was a very bad racer: then, pray, sir, take your choice, which of these will you have for a brood mare?—why, according to your own doctrine, you must take Sylvia: can the folly and nonsense of this opinion be equal to any thing but the practice of doing it? So, if my horse or mare, which is thorough-bred, and a descendant of Whitenose, Stamperab, or any such, shall, either in the first, second, third, or tenth descent, prove a good racer, (no matter from what cause,) truly, I must be afraid to breed from them, because you, from the prejudices you have conceived, and from not understanding any thing about horses, have been pleased to fix a mark of disgrace upon some one or more of their ancestors!

Now, by way of simile, let us suppose that your grandfather and mine were knock-kneed, crook-legged, and splay-footed—these, I think, would have been but indifferent racers; but will it follow, that such defects must, of necessity, be for ever entailed on all their posterity? Or, don't you think, when any of their issue happen to be better formed, that they would turn out better runners than their splay-footed grandfathers? Mark how the size, strength, activity, shape, and attitude, the beauty and regularity of their limbs and features, the spirit and temper distinguishable in all the families of men are lost, or, perhaps, improved, in one descent! How, in all these respects, this son differs from his father, and that from his grandfather! Pray, now, will it, or will it not, be so with the horse and his posterity, whether you and I have discernment enough to perceive the difference there is betwixt them, or not? But some difference of form must, and will, for ever arise in the breed and posterity of men and horses, and of all other animals, from the different form and constitution of the females, to which they and their descendants are occasionally joined

in copulation, or else the laws of nature are of no account.

Thus, you see, the distinctions set up of good and bad blood, when confined to the descendants of Arabian horses and mares, are equally absurd and foolish; yet, that the best and worst racers are most likely to beget such, cannot at all be doubted, for this is a law of nature not to be slighted.

But this law of nature extends both to horse and mare alike; so that the breeding a good racer requires a thorough knowledge of the animal, and is a matter of judgment, and not of chance, which, by relying solely on the blood, breed, or proper crossing, you make it to be.

Now, it has been allowed, all along, that the Arabians are the best kind of horses we know of, from which it can be expected to breed a racer, or, in other words, the most perfect horse for going; and, that the offspring or descendants of such are most likely to inherit the virtues of their progenitors; as, also, when they are deficient in the proper formation of these acting parts, or lose the elegance or muscular substance of their progenitors, by crossing, or otherwise, they will, according to the degrees of deficiency, in any or all of these points of conformity, fail, also, in the degrees of their performance—which truth we might see verified every day, if we were not blinded by our own prejudices, or took the trouble to understand any thing of the animal.

Furthermore, I am of opinion, that Arabian horses of the same family do, occasionally, differ from each other as much as any horses can do, in any other country of the same family; so that the possession of an Arabian horse, which is wanting in the respects that have been here set down, will be of little service to the owner, let the genealogy, blood, breed, and lineage of such horse be what they may. For these reasons it is I have asserted, and do maintain, that the excellence of all horses depends on their mechanism only.

So, then, there is nothing in blood—indeed, nothing at all—independent of form and matter, as the sportsmen say there is. But the Arabian horses, being better constituted for action, in these several parts, than other horses, do, by means thereof, excel all others, and each other also, according to the degrees of difference which really exists in their form and constituent parts, the nature and application whereof I have here

endeavoured to explain, I hope satisfactorily."

RACE HORSE, TRAINING THE. "The training of race horses (says Mr. Lawrence) is now a much more simple and rational process than in former days, and is indeed making a gradual approach to perfection. It was the fashion of old, to stuff horses, under preparation for the course, with many different kinds of baked bread, to load them with an immense burden of clothes, to force them to breathe a suffocating heat within doors, and greatly to overdo them with severe and long-continued exercise. Breads have long since been banished the running stables, where the heaviest oats, and the hardest and sweetest hay, are found to answer completely every purpose of nutrition. Race horses are no longer stifled with heat, like variolous patients under the ancient regimen. The usual length now of the exercise gallop, is from a mile to a mile and a quarter; of the sweat, from four to five miles."

The training of a race horse must, of necessity, be most regular and efficacious, on account of the superior and sudden exertions required of him. Hence the custom of sweating, either once in ten days, weekly, or still oftener, according to the animal's hardness of carcase and proneness to obesity. The method of sweating a race horse, is to load him with a double or triple quantity of clothes, and to run him four or five miles upon the turf, keeping him in general to a long steady gallop, or his rate, but making occasional bursts of speed. After this operation, the horse is taken within doors, and gradually uncovered, whilst the sweat is scraped from all parts of his body with an edged wooden instrument; when, being rubbed perfectly dry, his accustomed clothing is replaced. Sweating is usually performed in the morning.

Mr. Lawrence next describes the familiar life of the race horse. His winter, he says, is usually spent in the paddock and loose stable, enjoying himself at his ease, until the period of physic arrive, which must be so fixed, that there be at least an interval of two months between the last dose and the first race: this interval is of course spent in exercise. The author assumes here, with the majority of persons concerned in training, that no race horse can perform, to the full extent of his natural powers, without having undergone a course of purgatives. The spring and summer are passed in exercise

and racing, the horse perhaps travelling to a number of different courses in the country. A racer travels, perhaps, from twenty to twenty-four miles per day; and this, on the hard road, must of course abate his speed, whence arises the advantage of those which have been trained on the spot where they are intended to run. Mr. Lawrence says, he has also been assured by grooms, that a horse, in the midst of the racing season, when a sufficient interval can be spared, is frequently much benefited by a dose of physic. That the practice admits of great extremes, the following judicious remarks very fully evince.

"The purging system of the running stables (says Mr. Lawrence) is still liable to solid objections. Grooms always fancy that the body of a horse abounds with noxious humours, which require specific purgation. In their ideas, racing and aloetic or mercurial physic are connected by an indissoluble chain; and these nostrums are supposed to operate by a peculiar innate virtue or charm. All this is of much the same weight with any other nonsense which prescription may have sanctioned. The exhibition of physic in this case bears no more relation to the expulsion of evil humours from the body of a horse, than to the extirpation of corns in his feet: the sole intent is the detrusion of accumulated alvine fæces, in better English, unloading the stuffed bowels, attenuating the blood, and refrigerating or cooling the general habit. Against the best aloes no general objection can possibly lie; it is a cathartic, equally mild, safe, and efficacious; but I know of no possible business a groom can have with mercurials, in the case of physicing merely for condition. In some instances, the neutral salts might be substituted even for aloes, with great advantage; I mean with washy, hot, and irritable horses, which soon part with their flesh. If a person accustomed to the stable forms, would not be satisfied that his horse could race, having been purged with Glauber's salts only, let him make the essay with one which he does not intend should run to win.

It appears to me, that race horses are invariably over-purged, either by an excess in the number or strength of the doses, or by the use of Barbadoes aloes, or mercury. Such a cause can never fail of the effect of detracting from a horse's speed, and of debilitating him, however it may possibly elongate his stride. The cords and pulleys of the machine are de-

prived of too much of their spring, in which consists both the edge of speed and the grasp of continuance. The exercise also is, I am convinced, even yet too severe and indiscriminate, and our horses are often brought to the post in a condition much below their work. The external signs of this error are, want of cheerfulness, delicate feeding, refusal of water, or greediness of it, loose testicles, and backwardness in recovery of flesh after training. Many a colt, I believe, is tried and rejected, at the same time, seven or ten pounds the worse over the course, for his exercise and physic."

Mr. Lawrence acknowledges the truth of the common observation, "that a horse cannot run fat;" but insists, at the same time, that a very erroneous use is generally made of the maxim. The material question, he says, is, what is the proportion of physic and exercise calculated for such horses? a question which must be left to the discretion of men of sense and experience. If a horse, after three doses of physic, regular gallops, and a week's sweating, still carry a shew of superfluous substance, Mr. Lawrence would even start him under this disadvantage, rather than attempt to break down the texture of the animal with mercurial purges, or work him off his legs and speed, with extra sweats and violent galloping. "How often (says he) have I heard of horses, which were before ready to devour the manger, sweated out of their appetite, and then, if time could possibly be allowed, to mend the matter, purged with strong mercurial physic. The universal panacea of purgation is resorted to on all occasions."—"The error is still more gross, to over-train horses of naturally weak stamina, and irritable habits; such should always have a due portion of fleshy substance left to support the weak and flagging fibres. I suspect the usual routine of exercise is always too severe for these, but from its being general and common to them all, its ill effects are less apparent. There are horses which become bone lean in two or three weeks' exercise; I would ask, why continue to sweat such, since they appear to have no fatty substance left to sweat away? Washy horses particularly, I believe, get rid of their internal fat first, and, for the sake of their wind, would it not be better to sweat or rather give them a four-miles moderate gallop, in only their ordinary clothes, without any additional weight? which last, to the amount generally laid on, must debilitate

in a very considerable degree. I have seen some of your hot fly-away racers, so excessively influenced by nervous affection, that their lives seemed to be one continued state of anxiety and inquietude. These are always found awake to dreadful expectation: the groom touching their body girth, sets their hearts palpitating; the act of taking down the saddle operates as a cathartic to the imagination, which, from sympathy, is instantaneously followed by visible effects; they well know the sweating day, and the sight of the sweating clothes gives them a fit of the horrors. The secret of training these horses is, I should think, to give them as little work as possible, and that by themselves; to endeavour to render their exercise rather a pleasure than a fatigue and a terror to them; and not to be alarmed at the little extra flesh they may bear, which will surely rather help to carry them through, than retard their course."

The same well informed writer offers some remarks upon an established doctrine of the stables, that half-bred horses will not stand training: "There is no doubt (he says) that full-bred cattle are naturally best adapted to such a purpose; but the inability of the half-bred to endure this discipline arises chiefly from its severity, and the want of its proper adaptation to their natural powers. There is comparative speed and stoutness in every variety of the horse; and Bracken has said, that, by proper training, he could enable even a cart horse to run up to his foot. A remarkable quality in the race horse is, that which is styled, in the language of the turf, *running to the whip*; it means answering every stroke of the whip with an additional exertion, as long as nature lasts. Horses of this generous kind are termed 'honest,' and 'stout:' but the terms are usually confounded; for many a horse is honest, without being endowed with those constitutional powers necessary to produce stoutness or continuance; and many which possess those in the amplest measure, which they occasionally evince, are yet never to be depended upon. It is dangerous to offend these last with the immoderate use of the whip or spur, and I have known a winning horse stopped instantly by a foul cut under his flanks: I have also known, and indeed ridden, horses, honest and stout as the course was long, yet with such indignant stomachs, and such critical skill in their own powers, that, being convinced in a race of the impossibility of success, if abused with the

whip, they would instantly shorten their stroke ; but if nursed, and encouraged with a pull, the use of which every jockey knows, would, although beaten, strain every nerve to the last extremity. It is a strange quality in the true whipped horse, that he seems really to have a penchant for the whip and spur, since he absolutely will not keep to his stroke without the one or other of them, and never takes offence at either."

We copy the following from that useful little work the *Turf Expositor*.

"Training is an indispensable process for the race horse, the perfection of which must consist in bringing the animal to such a state, as to be enabled to use his powers to the best possible advantage. A horse, to be in perfect condition, or completely trained, should carry as much firm elastic muscle as possible, without even (if possible) a particle of fat. I am aware that an ignorant groom would immediately remark upon this, that some horses will carry much more flesh than others ; which is very true ; but my position, on that account, is not in the least affected : and I repeat, that when a horse has got upon his bones (by means hereafter to be noticed,) the greatest possible quantity of firm elastic muscle, destitute, as I before observed, of fat, his condition or training is perfect.

The best means of attaining this highly desirable state constitutes the object of consideration, and forms a subject upon which a diversity of opinions will most likely be found to exist. At the first blush of the case, it is abundantly evident, that it must be accomplished by food, physic, and exercise, the judicious and correct administration of which is the question at issue. Among the generality of persons who follow the occupation of training, the process is a regular, if not a mechanical, system, and, consequently, those constitutional differences which cannot fail to exist, are not sufficiently taken into consideration ; or, I may say, not sufficiently understood : what may be called the dictates of nature are, in a great measure, disregarded. There are delicate horses, and horses of robust constitutions ; and, if in preparing these animals for the course, natural causes are not duly considered, they can never acquire the requisite condition to enable them to put forth the utmost of their powers. And, since horses differing in constitution, feed more or less, according to their temperament, so will they require exercise and physic precisely

in the same manner ; hence, no positive rule can be laid down ; the treatment must mainly depend upon the judgment of the trainer.

I cannot help suspecting that race horses are very often over-trained, and consequently, when brought to the starting post, have suffered some deterioration of powers. Sweating, to the extent to which I have seen it carried, must have an injurious effect on the animal's constitution, and also upon his powers of performance. I will quote what the celebrated Chifney says upon the subject :—

"It is destruction to horses to sweat them in the manner they are sweated at Newmarket, as the practice there is to sweat them once in six days, and sometimes oftener ; and between those days of sweating, it is usual for the horses to go out twice a day, each time having strong exercise. In those sweating days, the horses are mostly covered with clothes, two or three times doubled, and go in their sweats six miles, more or less, and at times go tolerably fast. Directly the horse pulls up, he is hurried into the stable, which is on the spot for the purpose. As soon as he gets in, there is often more clothes thrown upon him, in addition to those he has been sweat in. This is done to make the horse sweat the more, and he stands thus for a time, panting before he is stripped for scraping ; that, with being thus worked, clothed and stoved, it so affects him at times, that he keeps breaking out into fresh sweats, that it pours from him, when scraping, as if water had been thrown on him. Nature cannot bear this. The horse must dwindle.

I think, in the first place, that the horse has been too long at this sort of work for his sinews, then the clothing and stoving forces his juices from him in such quantities as must destroy his spirits, strength, and speed ; and much clothing jades horses. A horse does not meet with his destruction when he runs ; for then he is likely to be lighter in his carcase, lighter in his feet, having plates on, not shoes, which is wonderfully in favour of his sinews ; and he is without clothes, and not stoved, and his course in running is very seldom more than four miles ; therefore, this difference in sweating and running is immense.

When a horse pulls up from his running, he has time given him to move gently in the air, and is usually scraped out upon the turf, and by these means

the horse perspires no more than suits his nature.

Horses should have different brakes against weather, to scrape in. Buildings for this, I think, would be most proper made after the horse dealers' rides in London; open in front, being out of the weather, and not out of the air. Places of this sort would be much better for horses to saddle in; for horses saddling in those close, dark stables, they, at times, break out with great perspiration, when saddling; and, in fine weather, in roomy places of this sort, there would be proper room, &c. for noblemen and gentlemen sportsmen, to command a sight of the horses at saddling; and horses are less timid being in a crowd, than they are to hear it, and not see it.

When a horse is first taken into work, after having had long rest, his carcase is then large and heavy, and the practice is to put more clothes upon the horse, and order him to go a longer sweat. But the horse, in this stage of his training, is the less able to bear more clothes, and go farther in his sweats; for the horse himself being heavy, that, with body and clothes, at times, has a great weight upon his legs; that, with this pressure, and his work heating him, it makes his sinews full and weak; and, thus working a little too fast or too long upon his sinews at one stretch, they are forced out of their places. This once done, the horse seldom stands training after.

It is ignorant cruelty in the great number of horses being thus unskilfully lamed at Newmarket, and gentlemen not only lose the use of their horses and their money by it; but it so greatly deprives them of their sport, that they otherwise would have."

Of late years, training may have, and I think has, experienced considerable improvement; or, at least, the race horse is not subjected to that excessive degree of toil, and even torture, as formerly marked the system; but then, as if to counterbalance one evil, another has been introduced—I mean, training at too early a period. An overgrown colt or filly, particularly the former, will be frequently found unable to stand the early training to which race horses are subjected at the present day; and yet such are often continued in the training stable, though they cannot race, and are almost constantly amiss; till ultimately they are turned out so very unsound, as to be scarcely worth keeping for any purpose. Animals of this

description, particularly if their form be promising, should be again consigned to the paddock, and there remain till they have acquired sufficient strength, in proportion to their size, as will enable them to perform the indispensable labour of training. It may also be further observed, that to irritable and washy horses, the systematic mode of training, and the periodical sweats in particular, must be highly injurious: they seldom carry sufficient flesh; and, as I have already stated, no horse can carry too much flesh or muscle, so long as it is divested of fat.

The ground also upon which race horses are trained is a matter of consideration. Very hard and very wet ground may be said to be equally objectionable, for reasons too obvious to need an explicit enumeration. The best ground for the purpose is that absorbent, elastic turf, which is found in moor lands—in fact, it constitutes what may be called the dry part of the moors: and hence we see the reason why the principal trainers reside in Yorkshire, where the very kind of turf, so desirable for the purpose, is in plenty. Further, it is a prevalent opinion, that horses cannot be well trained on a dead flat; but that they should be exercised on uneven or hilly ground. This, like many other general opinions amongst the unreflecting part of the community, requires qualification, or, at least, a little explanatory elucidation. I had, a few years ago, some conversation with a *knowing* Yorkshire trainer, upon this subject:—the man "*stood well with himself*:"—he dealt out his notions in a mysterious manner, in short and pithy sentences, which he at least considered as oracles of wisdom; and in respect to training upon hilly ground, he remarked that it gave the horse a better stride, opened his chest, and improved his wind!! At the first view of the case, it is evident that galloping upon a hilly surface must be much more distressing to a horse, and place his sinews or tendons in much greater danger:—and, therefore, although the general voice may be in favour of this mode of training, I cannot agree to its unqualified superiority. I shall be told, as I have been, that a horse, trained upon a level, will stand still in the race: but I should be glad to know, who has ever witnessed such a circumstance? I have seen a horse, trained upon what may be called a dead flat, run remarkably well—so much so, indeed, that he started five times the following season, and won every

race! For my own part, were I to choose the ground for training, as far at least as regards the unevenness or otherwise of the ground, I would prefer, not exactly a dead level, but where the surface was in some places gently undulated. The fact is, that a racer should be trained upon ground as similar as possible to that upon which he will have to contend in public; and as race courses vary, but are seldom remarkably hilly, so, it will easily be perceived, that a gently undulated surface is the most likely to be generally applicable to the purpose in question.

The present system of training is to commence operations at four o'clock in the morning, by brushing the horse over: this being done, and the horse having finished his corn, he is taken to exercise; he takes his walking, galloping before and after water, in *time* and *distance*, according to the animal's age, state of his flesh, &c. When he returns to the stable, wispings, leg rubbing, brushing, &c. ensue; afterwards, feeding, and the door is closed, the horse being left to himself, free from all kinds of disturbance: all this is finished as early in the day as possible. A similar ceremony, but shorter, takes place about three hours afterwards. Noon (twelve o'clock) for instance, brushing, feeding, &c. again, and the stable door is again closed for several hours, when similar operations to those of the morning, that is, air, water, and exercise, are repeated; similar stable discipline follows; the door is once more closed, about six o'clock. At the hour of eight, the horses are fed and racked up: thus the race horse is allowed at night to enjoy eight or ten hours with much advantage to the animal: and if the stables were not kept so oppressively hot, as many which I have visited appeared to me, they could not fail to be more conducive to the health of their inmates, who, under such circumstances, must necessarily breathe an atmospheric effluvium which cannot be otherwise than highly injurious to the animal constitution.

The administration of physic ought to depend upon circumstances and the constitution of the horse: it ought to result from the judgment of the trainer; and not given at systematic periods, so much the fashion some years back; and, I fear, not yet entirely exploded.

Chifney, in his "Genius Genuine," observes, "Some few, I am informed, have a way of pinching the race horses in their meat and water. This is another certain

way of perishing a horse in his spirits and strength. When a horse is too large in his carcase, he should be well fed; and, instead of pinching him in his water, where a horse is greedy of it, he should be watered very often, and at all times given as much as he will drink: he will then drink less, and come straight and strong in his carcase."

On the whole, I am of opinion, as I observed in the early part of the present article, that horses are frequently over-trained. However, it is tolerably well known, that under any system of training, horses will vary in their running:—the utmost speed of the race horse must necessarily depend on a variety of circumstances, and he will run variously at different times, and on different occasions.

In looking at horses, bone is regarded as the emblem, or rather as the indicator, of strength; and so it certainly is, but not in the way in which it is unthinkingly understood. Bone is the great support of the frame; and where there is much bone, the tendons will generally be large in proportion, and consequently much more muscle will be found also: hence, where there is much bone, the tendons will be large; and of course, in training, much more muscle can be placed upon them, than where the reverse of this conformation affords no such opportunity."

RACE HORSE, PLATING THE.
Race horses should always be plated before they are brought to post, where it can be done with safety.

The shoeing smiths, who live in a racing neighbourhood, are generally good hands at plating horses, being constantly in the habit of receiving instructions, and as constantly cautioned by training grooms to be careful in fitting the plates, preserving the feet, and driving the nails. It may therefore be advisable to plate such horses as may have good sound feet, and that are standing in stables close to the running ground, the evening prior to their running, after their coming in from exercise. On the morning that a horse is going to run, it is usual to walk him out on the heath, and there let him take a short canter, merely to see if all is right, and if he is well on his feet and legs. If the horse is observed by the groom to get stiff or short, and if the groom is of opinion that this is occasioned by any thing wrong about any of the horse's feet, there will be time to remove the plates, and to give the nails less hold or a different direction. The foot may afterwards be

relaxed in a bucket of water so that the horse may be brought to post, and run without much danger of being lamed, if the ground be not too hard.

Horses that may be heavily engaged, as some of those which may be entered for either of the great stakes, the Derby, or the Oaks, at Epsom, or the St. Leger, at Doncaster, often stand high in public opinion. Under these circumstances, to make all safe, and to satisfy the public, it is usual, and indeed very proper, to bring good shoeing and plating smiths to attend them from the different neighbourhoods where large training establishments are kept. This arrangement cannot well extend to country plate horses that are travelling during the summer from one meeting to the other; and from the repeated necessity there is for removing the shoes and plates of such horses, their feet are frequently in a very broken and weak state on their return to the home stables in autumn.

There are many shoeing smiths in the country who shoe horses very well; but there are many of them who have but little experience in plating horses, and what is worse, as it frequently happens, they have the most difficult feet to put plates upon.

When horses are to be plated, the groom may go himself, or he may send one of the boys to the smith over-night, with directions for him to attend at the stables in the morning, that he may take measure of their feet, and make the plates for such of them as may be going to run on the following day.

If there is any difference to be made between the size of the shoe and that of the plate, it is that the latter should be rather less than the former in its circumference round the foot, so that the plate may, to a certain extent, rest in the bed which may have been formed by the shoe. The plate should not, by any means, project beyond the edge of the hoof; for, should a restless, irritable horse have to saddle on the course, (which is the case where there is no rubbing house) he may, from jumping about, tread a plate off, unless the precaution is taken of setting the plate level with, or within the edge of, the hoof.

Now, as the crust or wall of horses' feet which may have been often plated, is more or less broken, the groom should direct the smith, as he is measuring the feet, to make his observations on the most sound parts of the crust, and as the nail holes of

plates are placed further apart than those of shoes, it sometimes gives the smith the advantage of driving his nails into the more sound parts of the foot. The groom, on such occasions, cannot too strongly point out the necessity of punching the nail holes in such parts of the plate as will immediately correspond with the sound part of the horn, provided those parts are so situated as to admit of the nails being driven into them, and the plate rendered secure without driving the nails too far back from the end of the heels of the plates; or if, to preserve the hoof, the smith can safely drive a nail occasionally into an old hole it may be done.

As plates are narrow, they cannot well come in contact with the sole, so as to occasion pressure there; they may therefore be made flat on both sides. Whether the horse's plates should be made to come home to the heels of his fore-feet, (and which I shall call full plates) will depend on circumstances. I shall first describe how the former should be made. The smith is to observe in the making and fitting of this plate, that the heels of it are to be brought but just up or home to the horse's heels when on, and not to project the least beyond them; and to prevent any hold being taken by the toes of the hind feet, the heels of the fore plates should be bevelled off.

If plates are properly forged, they require little or no rasping, which only renders them weak. Plates for moderate sized horses need scarcely ever exceed in breadth three and a half eighths of an inch. Middle sized, light horses, running short races, and not heats, (more particularly if the ground is soft) may not require them even of that breadth and substance. But for large horses, whose feet are in proportion to their size, the plate should vary accordingly. The fullering or groove, which is made round the centre of the plate, cannot well be too coarse, provided it does not too much weaken the plate. The fullering must be made in the centre, for if it is made to approach too near the outer edge, it will weaken the plate, in which case the smith cannot well get sufficient hold with his nails to keep the plate secure.

The depth of the fullering must be regulated, and the nail holes punched in it, according to the substance of the plate, and the size of the nails which are likely to be used in putting it on; that is to say, that by a smart blow or two from the hammer after the nails are driven, the

heads of them should be buried, and on a level with the surface of the plates.

The situation in which each nail hole should be placed, will depend in a great measure on the size of the plates. In good feet, the nail holes should begin where the toe may be said to end. There should be four nails on each side; the first and second nail holes from the toe may be punched an inch or more apart. Be this as it may, the smith must observe to regulate the distance here between these two holes so as to admit of his punching the third within the distance of about an inch and a half of the end of the heel of the plate; and in the centre of the space there left, between the third nail and the end of the plate, the last hole of the four should be punched; otherwise the plates, particularly of the fore feet, will spring at the heels, from the concussion produced by severe running on hard ground.

Horses that are kept in reserve for particular races, are consequently but seldom running. Their shoes and plates not being often removed, their feet (unless they have been neglected) are sound and strong, with good heels, and plenty of horn to nail to. For such horses, the full plate is to be preferred, as it gives the horse a more firm and level tread with his fore feet than the three quarter plate can possibly do.

The three quarter plate is made in most respects like the full plate, except in its length. Being shorter, it seldom requires for its security more than three nails on each side; and, as in the first-mentioned plate, where the toe ends, the first nail hole should be punched; the divisions being so arranged by the smith, as to the distance from each other, as to admit of the last hole being punched within half an inch of the end of the plate.

A three quarter plate is more generally used for country plate horses, their feet having got out of order from the repeated running and travelling, together with the necessity there is of frequently removing their shoes and plates. The plate must not be made to approach nearer the end of the horse's heels than there is horn sufficiently sound for it to rest upon; and it should also be sufficiently strong at those parts to give the two last nails a firm hold, that the plate may not spring at the heels when the horse is running.

Some horses' feet will allow of a plate of this sort coming within half an inch of the end of the heels; and others may not

allow of its coming within an inch or more. It is the soundness and substance of the horn at the horses' heels and quarters which must regulate the length of the plates.

Country plate horses, if they are good ones and properly selected, are generally of pretty strong constitutions; and when they are sent on a circuit, or what is commonly called, a roving commission, it is with a view to pick up what plates they can; and as the season advances, unless great care is taken of them, their feet, from the causes already mentioned, get into a very indifferent state; so much so, that it is often difficult for even a good smith to put their plates on with safety, and, at the same time, securely.

The hind plates may be made as the fore ones, and may be brought well home to the heels, as the heels of the hind feet are mostly in a good state. If a horse is a long striding one, and a free runner, he is likely to be rather a difficult one at his turns; and although it may be bad judgment to run such a horse over a small round course, yet, if such should happen, it may be advisable for the safety of both the rider and the horse, to give the latter some hold of the ground, by turning up the heels of his hind plates. But with a horse of the middle size, that has a short but quick stride, gives his race kindly, and is handy at his turns, there may be no occasion to turn up the plates. However, an experienced training groom, before his horse is plated, generally puts himself in possession of the sort of course he is going to run over, by previously cantering his hack over it, and he should afterwards regulate the plating of his horse according to circumstances.

The plates being made according to the directions given, the groom must then decide whether they shall be put on in the stable or on the course. This will depend on the distance the former is from the latter, and the sort of feet the horse may have.

Many of our country courses have not a stable near them. On such occasions, the horses are often obliged to stand at stables in the adjoining town, which is sometimes at a very considerable distance, perhaps two or three miles. This is much too long a length for horses to walk in their plates; indeed under almost any circumstances, it is too far unless it be on turf. If there is no other way to the running ground except on the hot surface of a hard turnpike road, I should strongly

recommend the groom to have his horse plated on the course, more particularly if the three quarter plates are to be used.

I shall now make some few remarks on taking the shoes off from race horses' feet preparatory to the putting on of the plates. When the wall or crust of a horse's feet is strong, and there is plenty of horn to nail to, and the soles are of a good substance, the shoes may be taken off in the usual manner, without much risk of injuring the foot. The smith, in taking them off, first knocks up the clinches with his buffer; then, with one side of his pincers placed between the shoe and the sole of the foot, and with the other side of them placed on the outside and upper edge of the shoe, he gives sufficient strength in forcing them downwards and inwards, to draw the nails, and the shoe comes off in the pincers. But with horses that have thin weak feet, this method of taking off the shoes must never be had recourse to. I have observed smiths, who were not much in the habit of taking shoes off from horses' feet, use more strength than judgment. On such occasions, if they would give themselves time for a moment to examine the sort of feet from which they may be going to remove shoes, they would find that to use less of the former and more of the latter, it would not only be considerably safer for the horses, but much more advantageous to themselves; for by doing the thing properly, they would preserve the foot and have more horn to nail to.

In removing shoes from bad feet, the smith should first knock up the clinches with one end of the buffer, and with the other he should start the nails, and then draw them out with the pincers one by one; the shoe would then fall off.

In putting on a race horse's plate, it will be observed that, if the horse's shoes should not have been removed from his feet for the space of three weeks, the hoof will, during that period, have grown, and with the action and weight of the horse, the shoe will in some degree, have imbedded itself into the foot. After the shoe is taken off, nothing should be done to the foot if it can be avoided, as (if the plate is made as I direct) there will be a sort of seat or bed round the crust in which the plate will lie, and this will in some measure, support and assist in keeping it in its place. However, it may sometimes be necessary, after the shoe is off, to run the rasp very lightly round the lower edge of the crust. If the groom

and smith see that it is requisite to remove a very small portion of horn, so as to level the foot that the plate may have an even surface to lie on, it must be done; but this is all that can be wanting. The heels of weak feet should be kept strong, that is to say, nothing should be unnecessarily taken from them.

Little need be said with regard to the nails which are used in putting on plates. The sizes which are in general use, are from No. 4 to No. 6, depending much on the size of the foot and weight of the plates. They should be tough, and of the best quality, and as it is not necessary to drive them very high up in good feet, the shorter they are, in reason, the better; as the clinches will not be so coarse as a long nail, and this is an object worth attending to,* more particularly with such horses as have thin crusts. The smith, having carefully sized, straightened, and judiciously pointed his nails, according to the sort of feet he is going to drive them into, next commences putting on the plates. If he takes but common care, there is not much difficulty or danger to be apprehended in the driving the nails into such feet as are strong, sound, and good. But without the greatest care and attention possible on the part of a good smith, difficulty will be encountered, and danger is to be apprehended in driving nails into weak, broken, and unsound feet.

A smith, on putting plates on such feet, must be very careful, and pitch his nails a little in, or out, so as to give the proper direction to each nail in passing it safely either low down or high up through such parts of the wall or crust of the foot. As he approaches towards the quarters and heels, it will be necessary for him to reduce the size of the nails, not only to prevent those parts from being much broken, but to give to each nail here, of whatever size it may be, a safe and secure hold; or, when it is necessary, to get a hold higher up in the foot, and when a common shoeing nail is used for the purpose, the smith should take care in beating out the nail, to draw it rather fine at the point, that in driving it he may not break the upper part of the hoof more than can be avoided.

The nails being driven, the smith gives a smart blow or two with his hammer on the head of each nail, so as to drive it home and bring the head upon a level with the surface of the plates; he then nips off the points with his pincers and

knocks down the clinches. But a smith who may not have been accustomed to plate horses is very likely (unless he is cautioned by the groom) to do in this case as he would in putting on shoes in the common way, which is, before he knocks down the clinches, to make a nick with the edge of his rasp under each clinch, so as to let the clinches into the hoof. This should never be done in plating horses, as it only tends to weaken those parts in the hoof, and more particularly if the crust or wall of the foot should be thin. There is another error into which a smith may fall who is unaccustomed to plate horses, if he is not cautioned. The error to which I allude, is that of his improperly using his rasp in what he calls finishing off the foot, by rasping over almost the whole surface, and thereby weakening the crust. This is not the only disadvantage likely to result from this method, for as the clinches of the nails used for putting on plates are small, the most trifling rub with a rasp may cut through them, or perhaps so much weaken them as to render the plates insecure. If there is any occasion to use the rasp after the plate is put on, it can only be to rub down the head of a common shoeing nail which may project, when the fullering is not sufficiently coarse to let in the head of it.

I will, for example, suppose an instance at a country meeting at which it is the custom to run heats. When a horse has run the first heat, he is pulled up, and rode to the scale for the jockey to weigh; after which, he is led out from the crowd to some convenient place to be rubbed over, and to be got ready for the second heat. This being done, and the horse's clothes put on, the boy who looks after him, takes up his feet, and, if necessary, he picks them out. But there is one thing which the boy knows to be very necessary, and that is to see that his horse's plates are not only on, but that nothing has happened to them; that is to say, he must see that the plate is neither broken nor sprung at the heel. Such things will sometimes occur when the ground is hard, and the plates light, or when they are not nailed close to the end of the heels. If a plate is thrown or broken, a fresh one must be put on. If a plate has sprung at the heel, it must be put right, which it may be sometimes done without taking it off, provided the horse has very strong sound feet. When a plate can be put right

on the feet without removing it, or without any risk of laming the horse, the method of doing it is this:—the smith should place his pincers shut, or nearly so, between the plate and the foot, and giving a gentle blow or two with his hammer on the end or heel of the latter, he brings it straight again; after which, as the foot is strong, he may, in order to prevent the same thing from recurring, take fresh hold higher up, or by making use of a larger sized nail in the same hole, secure the plate. But when a plate may have sprung at the heel of a weak foot, the groom must never allow the smith to put the plate right *on* the foot, or the odds are that the horse will be lamed. The plate must be taken off, and brought in place on any hard level surface that will answer the purpose. To prevent any thing of this sort happening to a horse's plates, the greatest care and attention should be paid by the groom to the making of them, as also to the putting them on, for when it happens that a horse's plates get at all wrong, it sometimes occasions great trouble and delay if the horse be high couraged or impetuous, and more particularly, should he have been called upon rather severely, or perhaps punished a little in running the first heat.

From incessant travelling and running, a horse's feet soon get out of order, unless great care be taken. When they are in that state, the horse must run in three quarter plates, if he has to run long lengths, or heats; and if the ground be hard, his feet will suffer much from concussion, and become very hot and painful.

If the horse, after running, has a long way to walk to his stable, perhaps on a hard road, his plates should be carefully taken off on the course, and his shoes should afterwards be as carefully put on. But when a horse walks from the course to his stable in his plates, I have known some grooms, after having the plates taken off, let the horse stand without shoes. Of this I do not approve. A horse with his feet in the state I have described, cannot well bear the weight of his body on them without shoes; and until the heat and pain in his feet subside, he is mostly seen lying down. I should recommend grooms not to let a horse, under the above circumstances, stand without shoes. It is better by far to put them lightly on, driving the nails into the old holes, and turning down the clinches as easy as possible.

A horse can then bear his weight and will stand or move about in his stall or box with more ease to himself, than when he has no shoes on.

Remedies for the relief of his feet can be much better applied, but not bran poultices, as used to be the custom. These are not good on such occasions, as the weight of the horse when standing spreads them abroad, and the heat of the feet soon absorbs the moisture of the poultice; and they are inconvenient for horses either to stand or lay down in. It was the custom, and a very excellent one, on a horse's arriving at his stable after running, to foment his legs and feet. I should afterwards put wet pads round the crust of the fore feet, and stop the bottoms with wet tow, before the stables are shut up at night. The pads and tow should be fresh wetted every stable hour.

If the horse be a craving one, and is likely to lie by for ten or twelve days, I should recommend a dose of physic to keep him light and to assist in getting his feet cool. As soon as the inflammation and soreness has left his feet, the wet pads should be removed, and the tar ointment occasionally applied round the crust of the feet, always keeping the bottoms constantly stopped with wet tow. This is the treatment I should apply to the feet of horses that may have got out of order from the causes before mentioned. If a horse's feet are weak and his heels low, and he has to run on hard ground, it would be advisable to let him run in his shoes.

A horse that has strong feet may be plated in the stable, and walk from thence to the course, and after running, he may return to the stables in his plates, and continue wearing them until he has performed his engagements for the meeting, which seldom exceeds three days. The groom will not want to do any work with the horse, as his first day's race will keep the length in him. If he requires any thing in the way of exercise, it can only be walking, or at furthest, a short hill gallop, both of which he may accomplish in his plates, without injury to his feet.—*Darvill.*

RACE RIDING. The person who is to ride a race, beside the grand requisite of honesty, should have abilities which qualify him for the performance: first, his strength should be sufficient to hold, support, and assist the horse, otherwise the horse will exhaust his wind. If he is necessitated to pull him together by raising his hands,

or throwing his weight out of centre, these checks produce an additional stress on the hocks or loins, which must tend to weaken or exhaust; and, if it is a close match, it is possible the heat might be lost by the riding. Therefore, that the horse may have every fair advantage, the rider should be strong enough to hold him without raising his hands, which might put the horse's head out of place, and though it were but an inch, this would be unpleasant and detrimental to him.—Next, his judgment should be able to discover, how the horse gallops with the greatest ease to himself, and this is a material thing to know, for no horse can be made the most of that is put out of his usual method of carrying himself; this being known or discovered, should be submitted to; what I mean by his usual method of carrying himself is, if he carries his head lower than is pleasant to the rider, if he is accustomed to bear more on one rein than the other, or has a favourite leg, for this is not the time to dispute or quarrel; you must find his favourite manner and comply with it.

The next consideration is, to start your horse coolly and temperately. If you flurry him at starting, his own eagerness will be very detrimental; therefore, endeavour to keep him moderate, that his gallop may be smooth and steady. You must give him all the support he requires from the hand in a smooth steady pull, and not increase it, unless his eagerness to get on necessitates you to do it; in which case, you must increase your pull, with the same steadiness as before, which will hold him and save his wind; but if you raise your hand to keep him in, you will raise his head out of place, which will put him to the fret, and he will be fighting for the ascendancy of the hand.

If you are necessitated to this, to prevent the horse from running away with you, your strength is not competent for such horse; nor must you throw your body out of centre, nor plant your feet forward to increase your pull without raising your hands: these operate to the disadvantage of the horse.

In situations where you are to push and do your utmost, you must assist the horse's efforts with the greatest exactness and judgment; without depriving the horse of the requisite support, your hand must permit him to extend himself to the utmost, and assist him in collecting himself together. This is done by permitting the horse to draw your hand from your



body, to favour his extension, and as he collects himself the hand returns to the body, and assists him in collecting his haunches under him.

This action of the hands must be done with the nicest judgment, otherwise you would abandon, deceive, deter, and prevent, rather than assist the horse's exertion. Be mindful, therefore, that the hand does not move till the extension of the horse removes it; and, during this removal, that the hand affords the same support that the horse requires. When the horse gathers himself together, the reins would be slack if the hand was not to return back again, and the horse would not be able to bring his legs so close, as by the assistance of the rider's support he would be enabled to do. Therefore, as the horse gathers himself, the hand must return, yielding him that support which assists the haunches coming forward.

This skill of the rider is mostly displayed at the running in. Over-eagerness of the rider, flurry, or the like, may sometimes take place with young jockeys. I therefore caution gentlemen who choose to ride their own matches among themselves, to be collected at this time; for, if it is a near match, their winning or losing depends on the riding. The over-doing or under-doing their part is equally detrimental. For, were you to yield your hand too much, you abandon your horse; and, in gathering him together, if you over-do your part, you check his next extension: hence, a steady support must be given, which, at this crisis, must be neither more nor less than the horse requires.

Now let me explain the consequence of either. First, if you do not sufficiently support the horse, the consequence is, the horse dare not extend himself so far as he could under a confident support of the hand, because that support is a great assistance in gathering himself together; but the eagerness of the horse will make him extend himself as far as he can safely, independent of the hand, and the labour and exertion of gathering himself, without support from the hand, exhausts his wind and strength, and the horse is said to be blown. Therefore it is necessary that the rider's strength should hold out equal with that of the horse, since one depends so much on the other.

On the other hand, the support the hand is to afford, is to be no more than what the horse takes; for the hand is not to dictate to the horse at what rate he is

to pull; if the horse rides cool and steady, he will take a support equal to the rate or extension he is at; but, if hot and eager, he will require a greater support to restrain him from over-running and exhausting himself, and the hand must give support to prevent such consequences; but at the push or running in you must give him the liberty to exert his utmost, and so much support, and no more, than will enable him to do it—if you give him more you restrain him—if you give him less, he cannot confidently throw himself out.

If, in endeavouring to assist the horse, you pull him too much together, you check him, particularly if your horse is nearly spent; when you find the horse done pulling, it is time you had done running, for he is then exhausted, and must lose if the others are not in the same state. If you find your horse strong, and close pushed at running in, the application of the whip, given at the instant, before he takes his stroke, may draw an additional spring or two from him, and give you some assistance; but the whip and spurs, at other times, are of little service; the emulation and eagerness of horses will carry them beyond what they can hold, and the whip or spurs discourages, if too much or injudiciously applied.

You will observe in the hunting and racing systems of riding, that pressing the feet in the stirrups to increase your pull, is not allowable if it can be avoided, but particularly in racing, for you must thereby considerably increase your weight or pressure on the saddle; and, though it is called riding in the stirrups, when you ride properly, the stirrups sustain a very inconsiderable weight, and when the horse is extended and pulls fair, you may ride in the same position almost without the stirrups, as the grasp with the knees, and the pull of the horse, will keep your position steady.

Having pointed out what operates to the advantage and disadvantage of the horse's speed, the rest must be left to practice, which is to perfect every science; but without studying theory, practitioners, we find, are very apt to run into error.

RACING, GENERAL RULES AND LAWS CONCERNING. Horses take their ages from May-day; that is, a horse foaled any time in the year 1828, will be deemed a year old on the first of May, 1829.

Four inches are a hand.

Fourteen pounds are a stone.

Catch weights are, each party to appoint any person to ride without weighing.

A post match, is to insert the age of the horses in the article, and to run any horse of that age, without declaring what horse, till he come to the post to start.

Horses not entitled to start without producing a proper certificate of their age, if required, at the time appointed in the articles, except where aged horses are included, and in that case a junior horse may enter without a certificate as to age, provided he carry the same weight as the aged.

No person shall start more than one horse of which he is the owner, either wholly or in part, and either in his own name or in that of any other person, for any race for which heats are run.

The horse that has his head at the ending post first, wins the heat.

For the best of the plate, where three heats are run, the horse is second that wins one heat.

For the best of heats, the horse is second that beats the other horses twice out of three times, though he do not win a heat.

Where a plate is won by two heats, the preference of the horses is determined by the places they get in the second heat.

Where a plate or subscription is given for the winner of the best of three heats, a horse, to win the prize, must be the actual winner of two heats, even though no horse appear against him for both or either of the heats.

When three horses have each won a heat, they only must start for a fourth, and the preference amongst them will be determined by it, there being before no difference amongst them.

In running of heats, if it cannot be decided which horse is first, the heat goes for nothing, and they may all start again, except it be between two horses that had each won a heat.

If a rider fall from his horse, and the horse be rode in by a person who is sufficient weight, he shall take his place the same as if his rider had not fallen, provided he go back to the place where the rider fell.

Jockeys must ride their horses to the usual place for weighing the riders, and he that dismounts before, or wants weight, is distanced; unless he be disabled by an accident which should render him incapable of riding back, in which case he may be led or carried to the scale.

Horses' plates or shoes not allowed in the weight.

Horses running on the wrong side of a post, and not turning back, are distanced.

Horses drawn before the plate is won are distanced.

Horses are distanced if their riders cross or jostle.

All complaints of foul riding must be made before or at the time the jockey is weighed.

No distance in a fourth heat.

A confirmed bet cannot be off but by mutual consent, except in the cases hereinafter mentioned.

Either of the betters may demand stakes to be made, and on refusal, declare the bet to be void.

If a better be absent on the day of running, a public declaration of the bet may be made on the course, and a demand whether any person will make stakes for the absent party, and if no person consent to do so, the bet may be declared void.

Bets agreed to be paid or received in London, or any other specified place, cannot be declared off on the course.

If a match or sweepstakes be made for any specified day in any race-week, and the parties agree to change the day to any other in the same week, all bets must stand; but if the parties agree to run the race in a different week, all bets made before the alteration shall be void.

The person who lays the odds has a right to choose a horse or the field; when a person has chosen a horse, the field is what starts against him; but there is no field without one horse starts against him.

Bets and stakes made in guineas are paid in sovereigns.

If odds are laid without mentioning the horse before the race is over, the bet must be determined by the state of the odds at the time of making it.

Bets made in running are not determined till the plate is won, if that heat be not mentioned at the time of running.

A bet made after the heat is over, if the horse betted on does not start, is void.

Bets determined, though the horse does not start, when the words "play or pay," are made use of in betting.

Where two horses run a dead heat for a sweepstakes or plate, and the parties agree to divide the stakes equally, all bets between those two horses, or between either of them, and the field, must be settled by the money betted being put together and divided equally between the parties. If, after the dead heat, an un-

equal division of the stakes be agreed upon, then the money betted shall be put together, and be divided between the parties in the same proportion as the stakes shall have been divided. If a bet be made on one of the horses that ran the dead heat against a horse that was beaten in the race, he who backed the horse that ran the dead heat wins half his bet. If the dead heat be the first event of a double bet, the bet shall be void.

Bets made on horses winning any number of races within the year, shall be understood, however the expression may be varied, as meaning the year of our Lord.

Money given to have a bet laid shall not be returned, though the race be not run.

Matches and bets are void on the decrease of either party before the match or bet is determined.

A horse walking over or receiving forfeit shall not be deemed a winner.

An untried stallion or mare is one whose produce has never run in public.

A maiden horse or mare is one that has never won.

Give and take plates, are weight for inches: twelve hands to carry a stated weight, all above to carry extra, in the proportion of 7lb. to an inch.

Any person that shall run a horse, mare, or gelding, for less value than fifty pounds, forfeits the sum of two hundred pounds.

Every person that shall print, publish, advertise, or proclaim any money or other thing to be run for of less value than fifty pounds, forfeits the sum of one hundred pounds.

Horses may run for any sum on Newmarket Heath, in the county of Cambridge and Suffolk, and Black-Hambleton, in the county of York, without incurring any penalty.—See **HANDICAP**, p. 415.

RACK. The railed convenience constructed above the manger in a stable for the reception of hay, is so called. It should be so formed, as to have alternate openings at the bottom, for the dust and seeds to pass through: and although it is become a practice exceedingly prevalent, to have the rack on one side, instead of the centre of the stall, there is no good or rational plea can be advanced in justification of such innovation: on the contrary, it compulsively accustoms the horse to stand with his hind quarters mostly on one side of the stall, by which his bedding is constantly and

inevitably deranged almost as soon as it is set fair.

RAKING is the old and ridiculous (or rather unnatural) custom of oiling the hand, and introducing it at the sphincter of the anus, to extract the indurated dung, when the horse labours under severe inflammatory colic, arising from previous constipation. The only reason adduced to justify the practice is, its being one means of obtaining immediate relief; and if that relief could be readily obtained to a certainty, the adoption could not with propriety be so totally condemned. The fact is, that this custom, like many others in the old code of veterinary law, is only a powerful shield for the protection of indolence; for one clyster would do more in liquifying and bringing away the hardened fæces, than back-racking (as it is called) would effect in an hour.

RANGER. An office of trust appertaining to the laws of a forest, where there are generally two, as principal and deputy ranger; to the latter of whom the executive department more materially extends: it is his particular province to take occasional cognizance of all matters within the limits (or what are termed purlieus) of the forest, and to make presentation of all offences and offenders at the proper courts when held. It is an office of honour, greatly superior to a keeper, a bailiff, or other subordinate.

RANGIFER. A kind of stag, so called from his lofty horns resembling the branches of trees.

RAT-TAIL. A horse having a long dock, and little or no hair upon it, is said to be rat-tailed.

RAT-TAILS. Excrescences which creep from the pastern to the middle of the shank of a horse; so called from their resemblance to a rat's tail. Some are moist; others dry: the former may be treated as in the cure of the grease; and the latter with the following mercurial ointment.

Take of Crude mercury, one ounce;

Venice turpentine, half an oz.

Rub them together in a mortar, till the globules of the quicksilver are no longer visible; then add

Hog's lard, two ounces.

Mix.

If the hardness does not submit to the last medicine, it is usually pared off with a knife, and dressed with turpentine, tar, and honey, to which verdigrease, or white vitriol, are occasionally added. Before

the use of the knife, however, Bartlet advises this ointment :

Take of Black soap, four ounces ;
Quick-lime, two ounces ;
Vinegar enough to make an
ointment. Mix.

RATTLING IN THE HEAD. When a horse is heard to rattle in the head, it denotes obstructions, and affords ample proof that a cold has been recently caught,

or the glandular secretions impeded. Such rattlings being loud and frequent, (or rather incessant,) with large indurated tumefactions underneath the jaw, accompanied by a slimy, viscid, fœtid, discoloured discharge from the nostrils, danger should be instantly guarded against, as farcy or glanders will most probably ensue.

RAVEN. The raven is an inhabitant not only of our own island, but also of most other parts of the world.—Among the ancients it was esteemed a bird of much importance in augury ; and the various changes and modulations of its voice were studied with the greatest attention, and were too often used by designing men to mislead the unwary.

It frequents the neighbourhood of great towns ; where it is useful in devouring the carrion and filth, which it scents at a vast distance. It is a cunning bird, and generally careful in keeping beyond the reach of a gun.

When brought up young, the raven becomes very familiar ; and, in a domestic state, he possesses many qualities that render him highly amusing. Busy, inquisitive, and impudent, he goes every where, affronts and drives off the dogs, plays his tricks on the poultry, and is particularly assiduous in cultivating the good-will of the cook-maid, who is generally his favourite in the family. But with the amusing qualities, he often also has the vices and defects of a favourite. He is a glutton by nature, and a thief by habit. He does not confine himself to petty depredations on the pantry or the larder ; he aims at more magnificent plunder—at spoils that he can neither exhibit nor enjoy, but which, like a miser, he rests satisfied with having the satisfaction of sometimes visiting and contemplating in secret. A piece of money, a tea-spoon, or a ring, is always a tempting bait to his avarice : these he will slyly seize upon, and, if not watched, will carry to his favourite hole.

Mr. Montagu was informed by a gentleman, that his butler having missed many silver spoons, and other articles, without being able to account for the mode in which they disappeared, at last observed a tame raven, that was kept about the house, with one in his mouth ; and, on watching him to his hiding place, discovered there upwards of a dozen more.

Notwithstanding the injury these birds do to the farmer, a popular respect is paid to them, from their having been the birds that fed the prophet Elijah in the wilderness. This prepossession in favour of the raven is of very ancient date ; since the Romans themselves, who thought the bird ominous, paid to it, from motives of fear, the most profound veneration.

A raven, as Pliny informs us, that had been kept in the temple of Castor, flew down into the shop of a tailor, who was highly delighted with its visits. He taught the bird several tricks ; but particularly to pronounce the names of the Emperor Tiberius, and the whole

royal family. The tailor was beginning to grow rich by those who came to see this wonderful raven ; till an envious neighbour, displeased at his success, killed the bird, and deprived the tailor of all his hopes of future fortune. The Romans, however, thought it necessary to take the poor tailor's part ; they accordingly punished the man who offered the injury, and gave the raven all the honours of a magnificent interment.

The female builds her nest early in the spring, in trees and the holes of rocks ; in which she lays five or six bluish-green eggs, spotted with brown. She sits about twenty days ; during which time she is constantly attended by the male, who not only provides her with abundance of food, but, whenever she leaves the nest, takes her place.

Of the perseverance of the raven in the act of incubation, Mr. White has related the following singular anecdote:—In the centre of a grove near Selborne, there stood an oak, which, though shapely and tall on the whole, bulged out into a large excrescence near the middle of the stem. On this tree a pair of ravens had fixed their residence for such a series of years, that the oak was distinguished by the title of “ the raven tree.” Many were the attempts of the neighbouring youths to get at this eyry : the difficulty whetted their inclinations, and each was ambitious of surmounting the arduous task ; but when they arrived at the swelling, it jutted out so in their way, and was so far beyond their grasp, that the boldest lads were deterred, and acknowledged the undertaking to be too hazardous. Thus the ravens continued to build, nest upon nest, in perfect security, till the fatal day arrived on which the wood was to be levelled. This was in the month of May, when those birds usually sit. The saw was applied to the trunk, the wedges were inserted into the opening, the woods echoed to the heavy blows of the beetle or mallet, the tree nodded to its fall ; but still the dam persisted to sit. At last, when it gave way, the bird was flung from her nest ; and, though her parental affection deserved a better fate, was whipped down by the twigs, which brought her dead to the ground.

The raven feeds chiefly on small animals ; and is said to destroy rabbits, young ducks, and chickens ; and sometimes even lambs, when they happen to be dropped in a weak state. In the northern regions, it preys in concert with the white bear, the arctic fox, and the eagle ; it devours the eggs of other birds, and eats shore-fish, and shell-fish ; with the latter it soars into the air, and drops them from on high to break the shells and thus get at the contents. In the act of feeding, it shifts its prey from the bill to the feet, and from the feet to the bill, to ease itself. Willoughby says, that it may be trained to fowling, like a hawk.

Le Vaillant found a variety of the raven, differing from our's in size only and the greater curvature of its beak, in Saldanha-bay, at the Cape of Good Hope ; where, he informs us, it unites in large flocks, often attacking and killing the young antelopes.

Its faculty of scent must be very acute ; for in the coldest of the winter-days, at Hudson's Bay, when every kind of effluvia is almost

instantaneously destroyed by the frost, buffaloes and other beasts have been killed where not one of these birds was seen; but in a few hours, scores of them would gather about the spot to pick up the offal and blood.

The flesh of the raven is eaten by the natives of Greenland. They likewise use the skins sewed together as an inner garment, and form the split quills into fishing lines. The quills are in great request in our own country for the tuning of harpsichords.

RE-AFFORESTED. Is where a forest has been disafforested, and again made forest, as the Forest of Dean was, by an act of parliament, in the 20th of Charles II.

REARING. The ingenuity of man (says Adams) could not devise more means, than the horse does, to foil his rider. And though this subject properly belongs to horse-breaking, yet, as gentlemen have horses occasionally, that shew a disposition to be restive, it is proper they should, at least, know how to protect themselves from injury.

Of all the defences a horse makes, that of rearing is the most dangerous, when they rise rapidly and so unexpectedly, as you are scarcely aware of them, and so high as to endanger their falling backwards; it is fortunate a horse that rears to this extreme seldom or never kicks; you have, therefore, principally to guard against the rearing, and, when he takes you unawares, your body must come forward close to his neck, and your hands forward, on each side, even to clasp him round the neck, if you find it necessary.

To break horses of this dangerous vice, I have been in situations where I found it expedient to quit the horse, and alighting on my feet, have pulled the horse backwards; but these, though effective expedients, are only to be attempted at a particular crisis, and by persons perfectly collected, active, and agile. It so frightens a horse to be thus foiled, that he is wary of giving you the opportunity of serving him so again. I do not recommend gentlemen to attempt it; but whenever you are aware of the horse's disposition to rear, have your reins separated, and be prepared for him, and the instant you perceive him going to rise, slack the one hand, and bend him with the other, keeping your hand low. This bending compels him to move a hind leg, and being thrown off his balance, he of necessity comes down. Twist him round two or three times, to convince him of your superiority. It likewise confuses and

baffles him. By these means you may deter a horse from rearing to any dangerous height; and, after he has convinced himself by a few experiments, he will give it up for that time.

Every horse has a favourite side, on which he is prepared for defence; your attack must, consequently, be on his weak or unprepared side:—not only on this, but in every other instance. A horse that is addicted to kick high, seldom or never rears high, unless the firmness of your hand compels him to it. If your hand confines the head, as has been directed, you may bid defiance to his kicking; and, when a horse finds his defences do not avail, he wisely gives it over; but the twisting a horse round a few times for this vice will have its effect; if you seize a favourable opportunity to attack his feeble side, and have the advantage to twist him without his power of resistance, his astonishment and confusion will deter him from farther contention, unless you provoke it by ill-timed correction, passion, exultation, and the like.

Whatever passion possesses the rider, whether anger, revenge, cruelty, &c. it has the same effect on the horse's mind, as it would on our's, and prevents that concord and unity taking place, which ever should subsist between the rider and the horse. Therefore, the rider, who should be the most rational being, must always be disposed to amity, and should never suffer the most obstinate resistance of the horse to put him out of temper. If the contest does not demand his utmost exertions of strength, he should be able to hum a tune, or converse with the same composure and indifference as though the horse was all obedience; by this means, the instant a horse finds himself foiled, he desists, having no provocation to contend farther, and is abashed at his own weakness.

RECEIPTS FOR MAKING BOOTS AND SHOES RESIST WATER. One pint of linseed oil, half a pound of mutton suet, eight ounces of bees' wax, and one

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pennyworth of rosin :—the whole to be boiled together, and warmed before using.

Another.—If the shoes are new, take half a pound of bees' wax, a quarter of a pound of rosin, and one pound of tallow : to be boiled well together, and warmed before using.

Indian rubber dissolved in spirits of turpentine, and spread over the boot or shoe previous to using the blacking, is highly advisable.

N. B. It is hardly necessary to mention, that the shoes should be cleaned well from the dirt, and perfectly dry, before the application of either of these receipts.

Shoe-soles can have a layer of cork or waxed canvas introduced between.—This will be found a very excellent precaution.

Water-proof Composition.—If it be wished to render copper caps water-proof, a small portion of the following composition should be inserted in each, which will not prevent the ignition of the priming :

Tallow . . . 2 parts.

Hog's lard . . 1 do.

White soap . . 3 do.

Caps may be purchased water proof.

RE-CHASING. A sporting term but little known, and never used, except in the official language of the forest and its environs. Re-chasing is the discovery and driving home of outlying deer and other beasts, to the district from whence they had strayed.

RECHEAT. Is a recal of the hounds by the horn.

REDSHANK. See **POOL SNIPE.**

REGULUS. A bay horse, foaled in 1739, bred by Lord Chedworth, at whose death he was sold to Mr. Martindale, being at that time a maiden horse.

Regulus was got by Lord Godolphin's Arabian, out of that noted and valuable mare Grey Robinson.

In 1745, Regulus (in the name of Sweetlips) won 50l. carrying 12st. at Epsom, beating Mr. Teddon's Poppet, Mr.

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Grisewood's Brisk, and Mr. Greville's Chance. He was then named Regulus, and in the same year won the king's plate at Winchester, beating Mr. Grisewood's Teazer ; walked over for the king's plate at Salisbury ; won the king's plate at Nottingham, beating Mr. Hutton's Wormwood, Mr. Vavasour's Champion, and distanced two others ; the king's plate at Canterbury, beating Mr. Grisewood's Teazer ; the king's plate at Lewes, beating Mr. Smith's Grey Lincoln ; the king's plate at Lincoln, beating Mr. Vavasour's Champion ; and the king's plate at Newmarket in October, beating Lord Portmore's Grey Lincoln, and Mr. Everett's Lowther : Regulus won the first heat so very easy, that Lord Portmore and Mr. Everett withdrew their horses. At Newmarket in April, 1746, he won the king's plate, beating, easy, Mr. Grisewood's Teazer, which was drawn after the first heat.

Regulus, at six years old, won eight royal plates and a 50l. plate.—He was never beat, and was much superior to any other horse of his time.

Regulus then became a favourite and very valuable stallion in the north of Yorkshire, and was sire of an uncommon number of racers, stallions, and brood mares ; notwithstanding, it has been asserted that Mr. Martindale cleared by him, as a stallion, little more than 1000gs. He got Careless, Cato, Trajan, Morwick-Ball, Adolphus, Sejanus, Elephant, Jalap, Æolus, South, Prophet, Turk, Vampire, Denmark, Bucephalus, A-la-greque, &c.—He got the dam of Eclipse, the dam of Tandem, the dam of Revenge, the dam of Angelica, Curiosity, Snapdragon, &c. the dam of Miss West, &c. the grandam of High-flyer, the great-grandam of Sir Peter Teazle, and many others.

Regulus died at Low-Gaterley, near Catterick, Yorkshire, in 1765, aged 26. He covered at 10gs. and 5s.

REIN-DEER. Of all animals of the deer kind, the rein-deer is the most extraordinary and the most useful. It is a native of the icy regions of the north ; and though many attempts have been made to accustom it to a more southern climate, it shortly feels the influence of the change, and in a few months declines and dies. Nature seems to have fitted it entirely to answer the necessities of that hardy race of mankind that live near the pole. As these would find it impossible to subsist among their barren, snowy mountains without its aid, so this animal can live only there, where its assistance is most absolutely necessary. From it alone the natives of Lapland and Greenland supply most of their wants ; it answers the purposes of a

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horse to convey them and their scanty furniture from one mountain to another ; it answers the purposes of a cow, in giving milk ; and it answers the purposes of the sheep, in furnishing them with a warm, though an homely, kind of clothing. From this quadruped alone, therefore, they receive as many advantages as we derive from three of our most useful creatures ; so that Providence does not leave these poor outcasts entirely destitute, but gives them a faithful domestic, more patient and serviceable than any other in nature.

The rein-deer resembles the American elk in the fashion of its horns. It is not easy in words to describe their minute differences ; nor will the reader, perhaps, have a distinct idea of the similitude, when told that both have brow antlers, very large, and hanging over their eyes, palmated towards the top, and bending forward like a bow. But here the similitude between these two animals ends ; for, as the elk is much larger than the stag, so the rein-deer is much smaller. It is lower and stronger built than the stag ; its legs are shorter and thicker, and its hoofs much broader than in that animal ; its hair is much thicker and warmer ; its horns much larger in proportion, and branching forward over its eyes ; its ears are much larger ; its pace is rather a trot than a bounding, and this it can continue for a whole day ; its hoofs are cloven and moveable, so that it spreads them abroad as it goes, to prevent its sinking in the snow. When it proceeds on a journey, it lays its great horns on its back, while there are two branches which always hang over its forehead, and almost cover its face. One thing seems peculiar to this animal and the elk ; which is, that as they move along, their hoofs are heard to crack with a pretty loud noise. This arises from their manner of treading ; for as they rest upon their cloven hoof, it spreads on the ground, and the two divisions separate from each other, but when they lift it, the divisions close again, and strike each other with a crack. The female also of the rein-deer has horns as well as the male, by which the species is distinguished from all other animals of the deer kind whatsoever.

When the rein-deer first shed their coat of hair, they are brown ; but in proportion as summer approaches, their hair begins to grow whitish ; until, at last, they are nearly grey. They are, however, always black about the eyes. The neck has long hair, hanging down, and coarser than upon any other part of the body. The feet, just at the insertion of the hoof, are surrounded with a ring of white. The hair in general stands so thick over the whole body, that if one should attempt to separate it, the skin will no where appear uncovered : whenever it falls also, it is not seen to drop from the root, as in other quadrupeds, but seems broken short near the bottom ; so that the lower part of the hair is seen growing, while the upper falls away. The horns of the female are made like those of the male, except that they are smaller and less branching. As in the rest of the deer kind, they sprout from the points ; and also in the beginning are furnished with a hairy crust, which supports the blood vessels, of most exquisite sensibility. The rein-deer shed their horns, after rutting time, at the latter end of November ; and they are not com-

pletely furnished again till towards spring. The female always retains her's till she brings forth, and then sheds them about the beginning of November. If she be barren, however, which is not unfrequently the case, she does not shed them till winter. The castration of the rein-deer does not prevent the shedding of their horns: those which are the strongest cast them early in winter; those that are more weakly not so soon. Thus, from all these circumstances, we see how greatly this animal differs from the common stag. The female of the rein-deer has horns, which the hind is never seen to have: the rein-deer, when castrated, renews its horns, which we are assured the stag never does; it differs not less in its habits and manner of living, being tame, submissive, and patient; while the stag is wild, capricious, and unmanageable.

The rein-deer, as was said, is naturally an inhabitant of the countries bordering on the arctic circle. It is not unknown to the natives of Siberia. The North Americans also hunt it under the name of the *caribou*. But in Lapland, this animal is converted to the utmost advantage; and some herdsmen of that country are known to possess above a thousand in a single herd.

Lapland is divided into two districts, the mountainous and the woody. The mountainous part of the country is at best barren and bleak, excessively cold, and uninhabitable during the winter; still, however, it is the most desirable part of this frightful region, and is most thickly peopled during the summer. The natives generally reside on the declivity of the mountains, three or four cottages together, and lead a cheerful and social life. Upon the approach of winter, they are obliged to migrate into the plains below, each bringing down his whole herd, which often amounts to more than a thousand, and leading them where pasture is in the greatest plenty. The woody parts of the country are much more desolate and hideous. The whole face of nature there presents a frightful scene of trees without fruit, and plains without verdure. As far as the eye can reach, nothing is to be seen, even in the midst of summer, but barren fields, covered only with a moss almost as white as snow; no grass, no flowery landscapes; only here and there a pine tree, which may have escaped the frequent conflagrations by which the natives burn down their forests. But what is very extraordinary, as the whole surface of the country is clothed in white, so, on the contrary, the forests seem to the last degree dark and gloomy. While one kind of moss makes the fields look as if they were covered with snow, another kind blackens over all the trees, and even hides their verdure. This moss, however, which deforms the country, serves for its only support, as upon it alone the rein-deer can subsist. The inhabitants, who, during the summer, lived among the mountains, drive down their herds in winter, and people the plains and woods below. Such of the Laplanders as inhabit the woods and the plains all the year round, live remote from each other, and having been used to solitude, are melancholy, ignorant, and helpless. They are much poorer also than the mountaineers; for, while one of the latter is found to possess a thousand rein-deer at a time, none of the former are ever known to

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rear the tenth part of that number. The rein-deer makes the riches of this people : and the cold mountainous parts of the country agree best with its constitution. It is for this reason, therefore, that the mountains of Lapland are preferred to the woods ; and that many claim an exclusive right to the tops of hills, covered in almost eternal snow. As soon as the summer begins to appear, the Laplander, who had fed his rein-deer upon the lower grounds during the winter, then drives them up to the mountains, and leaves the woody country, and the low pasture, which at that season are truly deplorable. The gnats bred by the sun's heat in the marshy bottoms, and the weedy lakes with which this country abounds more than any other parts of the world, are all upon the wing, and fill the whole air like clouds of dust in a dry windy day. The inhabitants, at that time, are obliged to daub their faces with pitch, mixed with milk, to shield their skins from their depredations. All places are then so greatly infested, that the poor natives can scarcely open their mouths without fear of suffocation ; the insects enter, from their numbers and minuteness, into the nostrils and the eyes, and do not leave the sufferer a moment at his ease. But they are chiefly enemies to the rein-deer : the horns of that animal being then in their tender state, and possessed of extreme sensibility ; a famished cloud of insects instantly settles upon them, and drive thee poor animal almost to distraction. In this extremity, there are but two remedies to which the quadruped, as well as its master, are obliged to have recourse. The one is, for both to take shelter near their cottage, where a large fire of tree-moss is prepared, which filling the whole place with smoke, keeps off the gnats, and thus, by one inconvenience, expels a greater ; the other is, to ascend to the highest summit of the mountains, where the air is too thin, and the weather too cold, for the gnats to come. There the rein-deer are seen to continue the whole day, although without food, rather than to venture down to the lower parts, where they can have no defence against their unceasing persecutors. Besides the gnat, there is also a gadfly, that during the summer season, is no less formidable to them. This insect is bred under their skins, where the egg has been deposited the preceding summer ; and it is no sooner produced as a fly, than it again endeavours to deposit its eggs in some place similar to that from whence it came. Whenever, therefore, it appears flying over a herd of rein-deer, it puts the whole body, how numerous soever, into motion ; they know their enemy, and do all they can, by tossing their horns, and running among each other, to terrify or avoid it. All their endeavours, however, are too generally without effect ; the gadfly is seen to deposit its eggs, which burrowing under the skin, wound it in several places, and often bring on an incurable disorder. In the morning, therefore, as soon as the Lapland herdsman drives his deer to pasture, his greatest care is to keep them from scaling the summits of the mountains where there is no food, but where they go merely to be at ease from the gnats and gadflies that are ever annoying them. At this time there is a strong contest between the dogs and the deer ; the one endeavouring to climb up against the side of the hill, and to gain those summits that

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are covered in eternal snows ; the other forcing them down, by barking and threatening, and in a manner compelling them into the places where their food is in the greatest plenty. There the men and dogs confine them ; guarding them with the utmost precaution the whole day, and driving them home at the proper seasons for milking.

The female brings forth in the middle of May, and gives milk till about the middle of October. Every morning and evening, during the summer, the herdsman returns to the cottage with his deer to be milked, where the women have previously kindled up a smoky fire, which effectually drives off the gnats, and keeps the rein-deer quiet while milking. The female furnishes about a pint, which, though thinner than that of the cow, is, nevertheless, sweeter, and more nourishing. This done, the herdsman drives them back to pasture ; as he neither folds nor houses them, neither provides for their subsistence during the winter, nor improves their pasture by cultivation.

Upon the return of the winter, when the gnats and flies are no longer to be feared, the Laplander descends into the lower grounds ; and as there are but few to dispute the possession of that desolate country, he has an extensive range to feed his herd in. Their chief, and almost their only, food at that time, is the white moss already mentioned ; which, from its being fed upon by this animal, obtains the name of the *lichen rangiferinus*. This is of two kinds ; the woody lichen, which covers almost all the desert parts of the country like snow ; the other is black, and covers the branches of the trees in very great quantities. However unpleasing these may be to the spectator, the native esteems them as one of his choicest benefits, and the most indulgent gift of nature. While his fields are clothed with moss, he envies neither the fertility nor the verdure of the more southern landscape ; dressed up warmly in his deer-skin clothes, with shoes and gloves of the same materials, he drives his herds along the desert, fearless and at ease, ignorant of any higher luxury than what their milk and smoke-dried flesh affords him. Hardened to the climate, he sleeps in the midst of ice ; or awaking dozes away his time with tobacco ; while his faithful dogs supply his place, and keep the herd from wandering. The deer, in the mean time, with instincts adapted to the soil, pursue their food, though covered in the deepest snow. They turn it up with their noses like swine : and even though its surface be frozen and stiff, yet the hide is so hardened in that part, that they easily overcome the difficulty. It sometimes, however, happens, though but rarely, that the winter commences with rain, and a frost ensuing, covers the whole country with a glazed crust of ice. Then, indeed, both the rein-deer and the Laplander are undone ; they have no provision laid up in case of accident, and the only resource is to cut down the large pine trees that are covered with moss, which furnishes but a scanty supply ; so that the greatest part of the herd is then seen to perish without a possibility of assistance. It sometimes also happens, that even this supply is wanting ; for the Laplander often burns down his woods, in order to improve and fertilize the soil which produces the moss, upon which he feeds his cattle.

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In this manner, the pastoral life is still continued near the pole ; neither the coldness of the winter, nor the length of the nights ; neither the wildness of the forests, nor the vagrant disposition of the herd, interrupt the even tenor of the Laplander's life. By night and day he is seen attending his favourite cattle, and remains unaffected, in a season which would be speedy death to those bred up in a milder climate. He gives himself no uneasiness to house his herds, or to provide a winter subsistence for them ; he is at the trouble neither of manuring his grounds, nor bringing in his harvest ; he is not the hireling of another's luxury : all his labours are to obviate the necessities of his own situation ; and these he undergoes with cheerfulness, as he is sure to enjoy the fruits of his own industry. If, therefore, we compare the Laplander with the peasant of more southern climates, we shall have little reason to pity his situation ; the climate in which he lives is rather terrible to us than to him ; and as for the rest, he is blessed with liberty, plenty, and ease. The rein-deer alone supplies him with all the wants of life, and some of the conveniences ; serving to shew how many advantages nature is capable of supplying when necessity gives the call. Thus the poor little helpless native, who was originally, perhaps, driven by fear or famine into those inhospitable climates, would seem, at first view, to be the most wretched of mankind : but it is far otherwise ; he looks round among the few wild animals that his barren country can maintain, and singles out one from among them, and that of a kind which the rest of mankind have not thought worth taking from a state of nature ; this he cultivates, propagates, and multiplies ; and from this alone derives every comfort that can soften the severity of his situation.

The rein-deer of this country are of two kinds, the wild and the tame. The wild are larger and stronger, but more mischievous, than the others. Their breed, however, is preferred to that of the tame : and the female of the latter is often sent into the woods, from whence she returns home impregnated by one of the wild kind. These are fitter for drawing the sledge, to which the Laplander accustoms them betimes, and yokes them to it by a strap, which goes round the neck, and comes down between their legs. The sledge is extremely light, and shod at the bottom with the skin of a young deer, the hair turned to slide on the frozen snow. The person who sits on this, guides the animal with a cord, fastened round the horns, and encourages it to proceed with his voice, and drives it with a goad. Some of the wild breed, though by far the strongest, are yet found refractory, and often turn upon their drivers ; who have then no other resource but to cover themselves with their sledge, and let the animal vent its fury upon that. But it is otherwise with those that are tame ; no creature can be more active, patient, and willing : when hard pushed, they will trot nine or ten Swedish miles, or between fifty and sixty English miles, at one stretch. But in such a case, the poor obedient creature fatigues itself to death, and, if not prevented by the Laplander, who kills it immediately, it will die in a day or two after. In general, they can go about thirty miles without halting, and this without any great or dangerous efforts. This, which is the only

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manner of travelling in that country, can be performed only in winter, when the snow is glazed over with ice ; and although it be a very speedy method of conveyance, yet it is inconvenient, dangerous, and troublesome.

In order to make these animals more obedient, and more generally serviceable, they castrate them : this operation the Laplanders perform with their teeth : these become sooner fat when taken from labour ; and they are found to be stronger in drawing the sledge. There is usually one male left entire for every six females ; these are in rut from the feast of St. Matthew to about Michaelmas. At this time their horns are thoroughly burnished, and their battles among each other are fierce and obstinate. The females do not begin to breed till they are two years old, and then they continue regularly breeding every year till they are superannuated. They go with young above eight months, and generally bring forth two at a time. The fondness of the dam for her young is very remarkable ; it often happens that when they are separated from her, she will return from pasture, keep calling round the cottage for them, and will not desist until, dead or alive, they are brought and laid at her feet. They are at first of a light brown : but they become darker with age ; and at last the old ones are of a brown, almost approaching to blackness. The young follow the dam for two or three years ; but they do not acquire their full growth until four. They are then broken in, and managed for drawing the sledge ; and they continue serviceable for four or five years longer. They never live above fifteen or sixteen years ; and when they arrive at the proper age, the Laplander generally kills them for the sake of their skins and their flesh. This he performs by striking them on the back of the neck with his knife into the spinal marrow ; upon which they instantly fall, and he then cuts the arteries that lead to the heart, and lets the blood discharge itself into the cavity of the breast.

There is scarce any part of this animal that is not converted to its peculiar use. As soon as it begins to grow old, and some time before the rut, it is killed, and the flesh dried in the air. It is also sometimes hardened with smoke, and laid up for travelling provision, when the natives migrate from one part of the country to another. During the winter, the rein-deer are slaughtered as sheep with us ; and every four persons in the family are allowed one rein-deer for their week's subsistence. In spring they spare the herd as much as they can, and live upon fresh fish. In summer, the milk and curd of the rein-deer makes their chief provision ; and in autumn, they live wholly upon fowls, which they kill with a cross-bow, or catch in springes. Nor is this so scanty an allowance ; since, at that time, the sea fowls come in such abundance that their ponds and springs are covered over. These are not so shy as with us, but yield themselves an easy prey. They are chiefly allured to those places by the swarms of gnats which infest the country during the summer, and now repay the former inconveniences, by inviting such numbers of birds as supply the natives with food a fourth part of the year in great abundance.

REIN-DEER

The milk, when newly taken, is warmed in a caldron, and thickened with rennet ; and then the curd is pressed into cheeses, which are little and well tasted. These are never found to breed mites as the cheese of other countries ; probably because the mite-fly is not to be found in Lapland. The whey which remains is warmed up again, and becomes of a consistence as if thickened with the white of eggs. Upon this the Laplanders feed during the summer ; it is pleasant and well tasted, but not very nourishing. As to butter, they very seldom make any, because the milk affords but a very small quantity, and this, both in taste and consistence, is more nearly resembling to suet. They never keep their milk till it turns sour ; and do not dress it into the variety of dishes which the more southern countries are known to do. The only delicacy they make from it is with wood-sorrel, which being boiled up with it, and coagulating, the whole is put into casks, or deer skins, and kept under ground to be eaten in winter.

The skin is even a more valuable part of this animal than either of the former. From that part of it which covered the head and feet, they make their strong snow-shoes with the hair on the outside. Of the other parts they compose their garments, which are extremely warm, and which cover them all over. The hair of these also is on the outside ; and they sometimes line them with the fur of the glutton, or some other warm-furred animal of that climate. These skins also serve them for beds. They spread them on each side of the fire, upon some leaves of the dwarf birch tree, and in this manner lie both soft and warm. Many garments made of the skin of the rein-deer are sold every year to the inhabitants of the more southern parts of Europe ; and they are found so serviceable in keeping out the cold, that even people of the first rank are known to wear them.

In short, no part of this animal is thrown away as useless. The blood is preserved in small casks, to make sauce with the marrow in spring. The horns are sold to be converted into glue. The sinews are dried, and divided so as to make the strongest kind of sewing thread, not unlike catgut. The tongues, which are considered as a great delicacy, are dried, and sold into the more southern provinces. The intestines themselves are washed like our tripe, and in high esteem among the natives. Thus the Laplander finds all his necessities amply supplied from this single animal, and he who has a large herd of them has no idea of higher luxury.

But, although the rein-deer be a very hardy and vigorous animal, it is not without its diseases. I have already mentioned the pain it feels from the gnat, and the apprehensions it is under from the gad-fly. Its hide is often found pierced in a hundred places, like a sieve, from this insect, and not a few die in their third year from this very cause. Their teats also are subject to cracking, so that blood comes instead of milk. They sometimes take a loathing for their food ; and, instead of eating, stand still and chew the cud. They are also troubled with a vertigo, like the elk, and turn round often till they die. The Laplander judges of their state by the manner of their turning. If they turn to the right, he judges their disorder but

slight; if they turn to the left, he deems it incurable. The rein-deer are also subject to ulcers near the hoof, which unqualifies them for travelling, or keeping with the herd. But the most fatal disorder of all is that which the natives call the *suddataka*, which attacks this animal at all seasons of the year. The instant it is seized with this disease, it begins to breathe with great difficulty; its eyes begin to stare, and its nostrils to expand. It acquires also an unusual degree of ferocity and attacks all it meets indiscriminately. Still, however, it continues to feed as if in health, but is not seen to chew the cud, and it lies down more frequently than before. In this manner it continues, every day consuming and growing more lean till at last it dies from mere inanition; and not one of these that are attacked with this disorder are ever found to recover. Notwithstanding, it is but very lately known in that part of the world; although, during the last ten or fifteen years, it has spoiled whole provinces of this necessary creature. It is contagious; and the moment the Laplander perceives any of his herd infected, he hastens to kill them immediately before it spreads any farther. When examined internally, there is a frothy substance found in the brain, and round the lungs; the intestines are lax and flabby, and the spleen is diminished almost to nothing. The Laplander's only cure in all these disorders, is to anoint the animal's back with tar; if this does not succeed, he considers the disease as beyond the power of art; and, with his natural phlegm, submits to the severities of fortune.

Besides the internal maladies of this animal, there are some external enemies which it has to fear. The bears now and then make depredations upon the herd; but of all their persecutors, the creature called the glutton is the most dangerous and the most successful. The war between these is carried on not less in Lapland than in North America, where the rein-deer is called the *carribou*, and the glutton the *carcajou*. This animal, which is not above the size of a badger, waits whole weeks together for its prey, hid in the branches of some spreading tree; and when the wild rein-deer passes underneath, it instantly drops down upon it, fixing its teeth and claws into the neck, just behind the horns. It is in vain that the wounded animal then flies for protection, that it rustles among the branches of the forest, the glutton still holds its former position, and, although it often loses a part of its skin and flesh, which are rubbed off against the trees, yet it still keeps fast hold till its prey drops with fatigue and loss of blood. The deer has but one method of escape, which is by jumping into the water: that element its enemy cannot endure; for, as we are told, it quits its hold immediately, and then thinks only of providing for its own proper security.

REINS. Are the parts of a bridle which are affixed to the eyes of the bit, or bits, on each side of a horse's mouth, pass up the horse's neck, and are united at the reverse end, where the junction of both are held in the hand of the rider. A snaffle-bridle, and a hard-and-sharp, have

each of them two reins; a Pelham and a Weymouth have each four.

REINS. The reins of a horse are the parts where the kidneys are seated; and the word is generally used in a synonymous sense with loins. When a disorder arises, or a defect is observed, in these

parts, it may be supposed to have originated in some short and sudden turn in a narrow stall; carrying too heavy a weight, or drawing too large a load. Whenever such injury is sustained, a difficulty of staling, partial dribblings, or the urine very high coloured, and tinged with blood, will soon point out the seat of the complaint.

REINS, PILLAR. Those affixed to the central pillars of a riding school are so called; as are those likewise, by which the horse is kept confined ready for his rider, when saddled, bridled, and turned round in his stall.

RELAY. A relay of horses is a supply of fresh ones fixed at some particular spot, to exchange upon a journey. A relay of hounds applies to hunting excursions, where a part of the pack is alternately detached to a certain place of destination, that the sport may be continued daily, without intermission.

REPOSITORIES. According to Dr. Johnson, a repository is a place where any thing is safely laid up; but we must extend the meaning of the word. Repositories are at present to be found numerous enough in London, and are to be met with in many of the large towns throughout the kingdom. They are establishments where horses, carriages, &c. are constantly on sale, and which, at stated (generally weekly) periods, are offered for sale by auction. Tattersall's celebrated establishment may be placed at the head of the list; and there are other repositories of respectability; but it must not be denied that at many of these places it behoves those to be on their guard who wish to make a purchase, since no means are left untried to deceive the unwary: it must be admitted also that many of these places afford facilities for the professed horse stealer to dispose of his infamous acquired commodity.

RESTIVENESS in horses proceeds from a bad disposition or temper, which obstinately refuses obedience, where he finds the rider has not sufficient skill or address to compel him; and I believe there would be fewer restive horses, if the persons first employed to break them, knew the method of foiling their defences, for want of which, the horse is too frequently successful; which encourages him to repeated and more determined trials, and the oftener he succeeds, the more he is confirmed in the vice. Horses of this disposition are exceedingly subtle, and watch their opportunity. They first,

as it were, feel for your firmness and resolution; if they find your seat strong, and you determined, they wait their opportunity of situation where they can attack you to advantage, and are sure to defend themselves at that point on which you will attack them.

Now the great object of the rider in these contests, is to frustrate the horse's intentions, and protect himself from injury in the struggle. The horse commences his attack generally by stopping, turning short round, mostly to the right hand, as taking the rider at the greatest disadvantage, because few men are so powerful with the left as the right hand, and the horse expects you will oppose the opposite hand to which he turns, to prevent him: he therefore designedly attacks your weakest hand, and is so prepared to defend himself against your utmost efforts, that it is vain to attempt it. But, instead of attempting to prevent him with your left hand, attack him rather with your right, and turn him completely round, so that his head is presented the way you were going. And here an application of the spurs may be tried, if it will compel him forward, but it seldom does. He generally turns round again, and you, in like manner, attacking his unguarded side, turn him two or three times, letting your heel and spur, if necessary, powerfully assist your hand, before he can arm or defend himself against it. Finding themselves baffled in the plot of their defence, some give it up, and go on; others will make a more obstinate resistance, and since he refuses to go the way you want him, you must studiously prevent his going any other: for which reason, finding him set himself against your endeavours to make him go forward, immediately change your attack, turn him about, and rein him backward. When a horse sets himself against going forward, he is easily compelled backward. Here his defence is again baffled, and this is ever to be your rule—never to contend with him on that point he is prepared to resist.

In these contests you must be collected, and have an eye to the surrounding objects, that you may not put yourself in an awkward situation, which through inattention you may do, without the design of the horse; but it frequently happens that restive horses try their utmost to get you into these situations, by sideling to other horses, carriages, walls, rails, the foot pavement, the houses, &c. &c.

Now it is so natural for persons to

pull the horse from the object that he makes for, that we do not wonder to see it practised ; but this gives a determined horse the completest opportunity of accomplishing his intention ; therefore, admitting it to be a wall,—a riding house is surrounded with walls, and a restive horse would be always crushing your knee against it, if we had not the means to prevent him. Therefore, whenever we find the horse so disposed, instead of pulling him from the wall, we bend his head to the wall, by which the side next the wall is in a concave position, which prevents his utmost endeavours from doing you any injury.

But in the streets, or on the roads, innumerable objects more dangerous than a wall, will present themselves, which you must be attentive not to come near. But the instant you apprehend or perceive him sideling to any object, turn his head to that object, and back him from it. By this means you protect yourself from injury, and foil his intentions ; consequently, after a fruitless contest, the horse is necessitated to submit. The application of whip or spurs in these contests, more than to shift the croup, or give efficacy to your hands, is of so little use, that I dare not mention them, for correction injudiciously applied does great mischief ; and many people's passions have no bounds when they begin ; and, since I know a horse's vices can be subdued without it, I recommend no correction, rather than an immoderate or ill-timed one ; for it is impossible for me here to specify the instant it should be given, or the severity I might adopt myself. This must be left to the discretion of the rider, and discretion will seldom apply the spurs sharply more than twice, or three times.

I don't mean to infer, that correction is never to be given ; some horses require it ; others that have not a vice belonging to them, are made desperate from injudicious punishment : the rider should have judgment to discover the temper and disposition of the horse, which is to determine, in a great measure, the nature and proportion of his punishment ; but to repeat the spurs and whip, to make a horse go forward when he refuses, is certainly wrong. He must be immediately manœuvred by the hands, by turning about and about, reining back, and the like, till he finds his designs, whatever they were, frustrated ; he will then, finding he can go no other, reluctantly go your way, and when you present his head for that pur-

pose, you may apply the spurs sharply, which is compelling him at last to obey the spurs, which he at first refused.

A horse's defences in the above instances, in a manner defeat their own purpose, because you immediately convert their defence to their punishment. But there are some few horses who fix themselves like stocks, setting all your endeavours at defiance, to move them. There they set up a defence that can no way endanger your person ; were they to move, you could convert that to your purpose, but while they stand as stocks, they defy you to move them forward, backward, to right or left. This defence must also be converted to punishment : let them stand, and make no attempt to move them, and you will find in a short space, frequently less than a minute, they will move of themselves. If you have patience to sit on their backs, and keep them there for a time, it is the most proper punishment for the offence, and will surely cure that mode of defence.

Though I have here set forth a method of manœuvre, with little or no correction, I am sensible that many persons (if they possessed the skill) have not the patience to adopt it, but will let their passion overcome their reason, and whip and spur will be rigorously applied. Some horses are of such an abject spirit, that they may be beat out of their sulks ; others you are obliged to manœuvre, and those riders that cannot keep their temper, apply the whip and spurs.

Now, the pulling and twisting a horse about, is what beats him, and when done with judgment soon overcomes and secures your safety. But when injudiciously applied, the contest is generally longer, and the rider exposed to imminent danger.—Should he escape unhurt, and worry the horse out, he attributes his success to the resolute application of the whip and spurs, which, I am of opinion, too frequently prolongs the contest. Nevertheless, the multitude are apt to mistake such temerity for skilful horsemanship, for they are eye witnesses of the resolution and courage of the rider, but are ignorant that the end might have been obtained by a more mild, certain, and safe, method. For when the rider loses his temper, which a brutal application of the whip and spurs is a certain indication of, his thoughts are not collected, and his operations are without judgment ; he provokes a more violent resistance, precipitates himself into dangerous situations, (which,

if he had been cool and collected, he might easily have avoided,) and the contest becomes imminently dangerous, and very doubtful; and if no disaster happens to the rider, it terminates by consent of the horse in a respite for the present; he submits for the moment, that he may recover strength to renew the attack, for he does not seem to consider himself defeated.

RESUSCITATION. The reviving or raising again to a state of action, an animal whose vital powers have been suspended by any accident, as by hanging, suffocation, drowning, &c. Mr. Feron observes, that the too common practice of leaving a mare in places unsuitable for her foaling, or exposing her in a field amongst other horses, frequently produces fatal accidents.—“Every one knows (says he) that there is not a year passes, but we hear of foals being smothered in ditches, or drowned in ponds or rivulets, after having been unmercifully bruised, or their bones fractured,” &c.

Those who advert to the various causes that may suspend life, will find that too hasty a decision, as to its final extinction, is by no means to be commended. Without having previously employed all the resources, that humanity and the veterinary art may suggest, we are by no means justifiable in supposing animals irrecoverable when the accident is recent.

“The first treatment in cases of suspended animation (says Mr. Feron) whatever may be the cause, should be directed to excite a susceptibility of stimuli; and next, for restoring susceptibility itself. An advantage so essential must induce us to be particularly careful in the choice and application of stimulant medicines, and not to administer such as are too powerful at first, which would indeed excite irritability, but in too violent a degree; and it is also deserving attention, that in the beginning of the process, when susceptibility of irritation is but slight, violent stimulants may be pernicious, by tending to suppress the latent sparks of life. But by a due proportion in the administration of those medicines, and being skilfully managed, the action and reaction of the vital power may be restored, and the system again become susceptible of stimuli.

It is difficult, and sometimes impossible, to discover, whether or no the vital principle is entirely suppressed. The susceptibility of irritation may be completely suppressed, and the animal, apparently

dead, may be insensible to the effect of the strongest stimuli, such as the operation of the knife, and effects of a red hot iron; and yet the vital power may not be extinct. The state of life is manifested from all the symptoms of animation. In this case, irritability is not impeded in its free progressive action; respiration, pulse, and animal heat, are somewhat perceptible.”

These and the subsequent remarks of this judicious writer will be sufficient to point out the rashness and impropriety of consigning to the kennel, a colt of considerable value, before the following treatment has been fairly and fully tried.

“If a colt is foaled apparently dead, in a place where but little or no assistance can be got, let his tongue be immediately stimulated, rubbing it with common salt. This stimulant may promote expectoration, and thus admit the external air freely: I have seen several instances of colts, foaled apparently dead, recovering all the symptoms of animation in less than twenty minutes. Instilling a few drops of volatile spirit into the inner corners of the eyes, may likewise operate with good effect; but, should the case prove obstinate, and vitality continue suppressed, the application of the actual cautery must be resorted to, or a red hot iron passed on one or both sides of the chest and under the belly. Cutting the skin in front of the chest, under the belly, and other places where rowels are admissible, is also advisable, as well as rubbing the legs well with oil of turpentine.

If any signs of life should be perceptible, then it would be an excellent practice to supply the blood with a greater proportion of oxygen gas, pure or diluted with atmospheric air. Stimulating the nostrils with the vapours of vitriolic acid, or marine acid, will also be a very proper application.

But a more proper method of immediately stimulating the heart and arteries, would be, by transfusing new blood into them. This operation deserves particular attention, in cases of suspended animation. It is performed by injecting the blood that comes out of the artery of a calf or sheep, into the jugular vein of a colt that is apparently dead at the same time he is foaled; and is done in the following manner, viz.

The animal you wish to kill, in order to save the other, must be well secured, and laid as near the other as possible. Then a longitudinal incision must be made



in its neck, that you may find the carotid artery, which lies along side, and immediately under, the jugular vein (or vein of the neck); having previously secured two injecting pipes, such as those used for injecting anatomical preparations, at each end of a tube long enough to reach from one animal to the other. One of these pipes must be introduced into the carotid artery of the calf, and the other into the jugular vein of the colt apparently dead; the artery must be well secured with a ligature just under the pipe, until the other pipe is properly fixed into the vein of the colt, or other animal, that we suppose to be in a state of suspended animation only. When the apparatus is ready, you may cut the ligature of the carotid artery of the calf; you will then see the blood, that comes immediately from the heart, running from one animal to the other."

Mr. Feron assures us, that "this operation is almost certain to restore life, if the organic fibres of the heart and arteries can be at all affected by stimulants;" and we confess there appears to be a considerable degree of probability in the attempt.

RETRIEVER, THE. In cover shooting, and particularly since the *battu* system has been introduced, a retriever has been found essentially serviceable. A water spaniel is perhaps as well calculated for this purpose as any ramification of the dog. The reader need scarcely be informed, that the duty of the animal in question, is to fetch the game when killed.

RHEUMATISM (says the judicious Feron) is certainly a very common complaint in the human subject; but whether this disease ought, or ought not, to be considered, in a modern veterinary work, as a genus of disorder belonging to the brute species, is not yet sufficiently determined, nor proved by experience and observation.

We know that many horses become lame without any apparent cause; yet this does not sufficiently warrant us to pronounce with certainty, that it is positively produced by rheumatism: because his lameness may arise from injuries done to, or violence exercised on, this noble animal, and not from rheumatism, as many old farriery writers supposed it to be: their works being, for the most part, compiled from the practice of medicine and surgery, adapted to the human subject, they have not discriminated between the structure and diseases of the human and brute species, and have described

many diseases as common to both, which in reality belong to the former only, but never affect the horse nor any other quadruped.

It is thus the ignorant practitioner, when he cannot find out the seat of the complaint, immediately pronounces that it is a rheumatism; whilst the more minute investigation of the enlightened, soon find the disease to be in some other place, and of a nature very different from rheumatism. Such as an inflammation of the sensible sole, frog, and lamina of the foot; or perhaps in the ligaments of the coffin and small pastern joints, &c. In short, if we examine and reflect upon the structure and functions of those parts, we shall see, that they are continually kept in an unremitting state of exertion; and the action which produces an unequal distribution of the weight, will undoubtedly produce a lameness, easily to be mistaken for a rheumatism, as the inflammatory symptoms will often subside, without the farrier's assistance; but there will remain a chronic lameness, for weeks, or perhaps months, generally owing to the mismanagement of the original accident; and to save the practitioner's ignorance, the disease goes under the name of rheumatism.

If horses and other animals are subject to rheumatism, it will be found to proceed from an inspissated mucus left upon the fascia of the muscles, occasioning pain when they move.

The grand difficulty lies in ascertaining the seat of this disease; however, the shoulders and hips are the parts most commonly affected with it, and it is often so deeply situated in those parts, that neither the sight, nor even the touch, can enable us to determine, nor to distinguish it from any other lameness. But if a horse goes lame without a visible cause, accompanied with a wasting of the limbs on the side affected, it appears so evident, as not to leave any doubt of its being a rheumatism.

The Cure must be began by taking a little blood, and rubbing the parts twice a day with spirits of turpentine, or blistering the decayed parts, allowing them to discharge for a considerable time; if these fail, no method would then be attended with so probable a success of a radical cure, as the actual cautery, made very small and round pointed, so as to be introduced very deep into the muscular parts; a few doses of purging physic will be of some service, particularly if it pro-

ceeds from any strumous humours, or a tendency to an ulcer; in the interval of purging, give one or two alterative balls every day, composed of antimony half an ounce, and calomel fifteen grains; the same dose may be repeated every day, and continued until the desired effect is obtained, taking care to keep the animal well clothed, with a great deal of gentle exercise.

This is another case in which warm bathing would be extremely beneficial, if it could be provided for horses with as little trouble and expense as it is done for the use of the human subject. After the treatment above recommended, it will be advisable to turn out the animal to grass; for which, a salt marsh will be preferable to any other; but this is recommended as a last resource only.

RIDING. See HORSEMANSHIP.

RIDING A TROTTING MATCH.

The method of riding a trotter is to sit as close down to the saddle as possible; by which I mean, you are not to rise in the stirrups, nor stand in them; but, taking a deep hold with the muscles of the thighs, sit as close and still as the action of the horse will permit; and the faster he goes, the less you will find your seat disturbed. The stirrups must not be too short, for you are never to bear more than the weight of your toe in them, and the rapidity of the horse going forward will give your body a little backward inclination, and your legs a little forward; for you must be mindful not to bring your legs too near him, lest he should bring his haunches forward, which might cause him to gallop.

The next consideration is, to know the manner and trim of the horse; for, since horses contract habits as well as men, at such times as you want their utmost exertions they must not be put out of them. Therefore, a man will ride a trotter to better advantage after he has been used to him, than he will the first time: accommodating yourself to the horse's manner, you sit still, and give him whatever aid or support he requires; carrying your hands low, you encourage him to extend himself to the utmost, and your judgment is to discover when he over-rates himself as much as will, if not prevented, certainly cause him to gallop.

This requires some skill, for otherwise you would be sure to make him gallop; to prevent him, you must increase your pull, but keep your hands down. Were you to raise your hand one quarter of an

inch to increase your power, you would cause the horse to gallop. If you find you have not sufficient strength, rather than raise your hand, you may press your feet forward in the stirrups, to give effect to your pull; but closing the legs, or raising the hand, in this situation, would immediately cause him to gallop. A horse is as liable, nay, more likely, to gallop at times, when he is not near at speed in the trot, as when he is at over-rate, and this is when the jockeys say he is not settled; that is, when his haunches are too much under him, and his over-eagerness to get on will not slacken the haunches to give the shoulders the lead.

These are awkward situations both for rider and horse, and they are rendered more so by the clattering of accompanying horses; the animation of the company so increases the horse's eagerness, which quickens the haunches, already too forward, that it requires the greatest skill to prevent the horse from galloping, and more so to settle him to the trot. Were you to ease your hand to give the shoulders liberty, the forwardness of the haunches would force the shoulders to gallop; if you pull at him, you increase your disorder, by pulling him together when he is already too much united, and risk his galloping; if you raise your hand, or close your legs, he is sure to gallop. You have, therefore, to act with the greatest caution and delicacy, by keeping your hands down, and preventing the propensity of the shoulders to lift into the gallop; you must not be angry or impatient, because your nerves would be thereby affected, which communicates to the horse, and he becomes more impatient, which prevents him from disuniting and extending himself; but if you are patient and cool, the restriction of the hand, mild and soft, the horse will soon slacken his haunches, drop his head, and extend himself. This done, you must be careful that no unsteadiness in your hand or seat creates the disorder again. The generality of trotters, when they extend themselves, or as they term it, *settle to it*, take a steady support from the hand; this must be permitted, and the hand kept firm and still, that the horse may have a dependence on it. He will frequently refresh his mouth, by yielding his nose, or moving his head, and then take a support again; whatever is accommodating to him may be allowed, so that it has not a tendency to make him lift before or behind, gallop, or abate his trot. When a

horse is true on his legs, you may encourage and urge him to do his best, but if he over-rates himself (which you will feel and know by practice) he must fall, or gallop to prevent it; unless the rider, at the instant he perceives it, saves and prevents him, by the method I have before related. When a horse's powers are unequally distributed, which happens from different causes; from nature, when the hind quarters have greater liberty than the fore, or the fore than the hind; from habit, by bad riding, when a horse is suffered to trot before and gallop behind, or gallop before and trot behind, they are then apt to lift or hitch when pressed or tired. You cannot in these situations urge them on, for fear of making a complete gallop of it; and the lifting and hitching are liable to dispute, the one party denying it to be a trot, the other persisting he did not gallop. In these situations, cool and patient endeavours will effect your purpose, and get your horse true in his trot, preferable to any other measures. You must not flurry a horse on any account, for that will surely unsettle him; and when settled, your seat must be as steady as possible, and your hand kept down, and attentive to correct every propensity to lift, hitch, over-rate, gallop, and the like. And whenever you feel these propensities, you must check them with the greatest nicety; for these checks certainly retard the horse's speed, consequently you must apply no more than just sufficient to prevent his galloping. Therefore, all the operations of the hand must be low, to keep the horse down, as they term it.

From these remarks, a person by practice may the sooner acquire the art; but, remember, a person must be a good rider to ride a match, whether galloping, or trotting, to the best advantage; and to ride well requires practice; for the theory is only the knowing how it should be done, and may want the ability to do it; but knowing the theory will certainly assist your practice.

RIDING SCHOOL is a convenient receptacle, with every accommodation for riding, where the young of both sexes are taught to ride by proper masters.

RIFLE. A short gun for ball-shooting, the inner surface of the barrel being grooved.

"Rifles (says Baker) throwing to the right or left is sometimes owing to the trigger pulling too hard, and at other times, to the man throwing his head too

far over the centre of the stock. The sword or bayonet, when fixed on the barrel, will be liable to attract the sight towards it, which will give a cross sight: in taking aim, the practitioner should guard himself particularly against this, or he will be much deceived at the intended object.

The alteration I have made in the false breech, at the breech-end of the barrel in rifles, by making a large deep hollow, will conduct the eye in a straight line to the sight, and will be found useful in preventing a cross sight. The importance of these improvements will be sufficiently obvious, and I have no doubt, when carried into practice, will meet general approbation, and be found very useful to the service in general.

By way of ascertaining whether a rifle carries to the right or left, I tried the following method, and the result of various experiments was perfectly satisfactory. I constructed a number of boards, to form a target, in a similar manner to a plate-rack. I placed twelve of these boards, half an inch thick, and separated one inch from each other, at the distance of one hundred yards, and as the ball passed, I carefully marked its direction. With a rifle which has thrown the ball from the straight line, I have found it pass through the target, as above constructed, in calm weather, one inch more on one side on the outward board than the one in the centre, where the ball, from a perfect rifle, had previously entered. I have repeatedly tried this experiment, in all weathers: and am convinced that my former opinion was perfectly correct, in stating, that the wind has a powerful influence on the flight of the ball, and will cause it to fly from a straight line, even though the piece be perfectly true.

If the rifle is found to throw to the right, the back sight should be drove to the left, and the front sight to the right; both of which are left loose for that purpose; if it throws to the left, move the sight contrary, as above, till the man who uses it finds it right. I do not approve of the sights being moved, after once set straight for the man that practises it.

The trigger should not draw too hard, as that will alter the direction of the rifle in firing. A rifleman, to ascertain when his trigger pulls too hard, is to suspend the trigger of the rifle on the fore-finger of his right hand, with the muzzle downwards, with the lock on full cock, (taking care the piece is not loaded, as that would

be very dangerous,) which should just bear its own weight; and if it requires considerably more than the weight of the piece to pull off the trigger, it is too hard, and will take the rifle out of its right direction when fired. The same rule will do to try the locks of muskets by; and the same expedient should be resorted to. I have seen many muskets where the trigger has drawn so hard as to require considerably more than their own weight to draw them off; and have often wondered how soldiers contrive to fire them at all; and particularly how they keep pace with others that will not bear their own weight when suspended on the trigger. What must be the exertion of the one man to the other, whose trigger draws so easy! I do not allude to hair triggers, but the triggers with common pull, as now used by the ninety-fifth regiment. The gun should neither be over heavy, nor too light; as the extreme of either would prove equally disadvantageous: in the one case, the gun might be made so heavy, that, were the trigger to bear the weight of it, it would cause too great exertion; and, in the other case, if it be made too light, by the same rule it would be very unsafe. The rifles of the ninety-fifth regiment are nine pounds and a half each; and the locks have a fly or scape in the tumbler, to prevent the sear catching at the half-cock, which will frequently happen, if the lock pulls as it ought to do without it; rifles requiring a much lighter pull at the trigger than muskets.

In letting the cock down from full to half-cock, the following directions should be particularly attended to: the thumb of the right hand should be on the top of the cock over the flint, against the cock-pin that holds in the flint: hold it back; with the fore-finger of the right hand draw the trigger, and let the cock gradually down towards the pan until it has passed the half-cock; then draw it back into the half-cock, which will be easily ascertained by hearing it click into the half-bent or catch of the tumbler. The locks of rifle pieces have in general a fly or scape in the tumbler of the lock, which is called a detant, to prevent the sear catching at the half-cock, which keeps it from going into the half-cock until it is let down, and drawn back as before mentioned; and consequently requires particular attention. Indeed the locks of all fire-arms cannot be too carefully noticed, nor the method I have suggested be too minutely practised; as I have often found

the sear catch on the half-bent of the tumbler instead of going into the bent, which makes it very dangerous; as a shake of the piece, or dropping the butt on the ground, would let it off. Such a mistake has in a great degree induced the report of a gun going off at half-cock; and particularly the lock of soldiers' muskets, which are apt to catch on the half-bent of the tumbler, if not let down and drawn back as before mentioned. This arises from the half-bent and sear nose being left too wide or too thick, which is frequently the case, but more especially with the locks of muskets. I am not an advocate for the use of hair triggers, as they are apt to get out of repair, and without great care become dangerous. If the locks are made to act as before mentioned, there will be no occasion for them.

To take a true aim with a cross wind, I recommend the practitioner to make some allowance, as I have ever found that the surest method. Some people fancy the folding elevating sights most eligible: but I confess I have little opinion of their practical utility, as the joints of the sights will work loose from wear, so that there will be little dependence in the truth of them. The sight for the greatest range may be up, when a shot at a shorter distance may offer: in this case the man, not perceiving it, would be much deceived in taking his aim; and will require the face to be removed from its stationary place on the stock, to enable the eye to pass over it: thus he will be doubly deceived, as he will have no rest for his cheek. I have found it a more certain way to make allowance in the elevation, rather than to move the face from its stationary place off the stock, to allow the eye to pass over the folding elevating sights, for three hundred yards range. In trying guns I have frequently been deceived by folding elevating sights; for which reason I rely always on one sight, and consider that much more to be depended upon, at all distances. Its shape on the top should represent a sphere of a circle, with a small notch in the centre, so as to admit of the light on each side of the front sight, which forms itself to the eye better than any sight I have ever yet tried. The back sight should not stand too near the lock; as it will be liable to be filled with filth from the smoke from the pan of the lock, which will be a great denial to taking a true sight through the small notch. The sight cannot be too much simplified, as the object is more

easily obtained ; and if a man cannot measure his distance with his eye, all the folding, elevating, or telegraphic sights so wonderfully eulogized, will never realize his expectations ; and though perseverance may accomplish much, he may rest assured he will eventually discover his error. One of the principal sciences in shooting is, for a man to measure his distance correctly before he shoots ; and, if he cannot do this, all the sights that can be added will never make him a good shot with a rifle, or indeed any other piece. As I have said elsewhere, this may easily be accomplished by adopting the method I have suggested, and by adhering strictly to the rules laid down for judging distances.

Among other new-fangled terms for sights, there is one called the *dioptra*, or telegraph sight ; but of which I entertain a poor opinion. However, of this I am certain, that whilst the man is taking his aim through this *famous* invention, I could shoot him three times over. From the description of it, I consider it both cumbersome and troublesome, and very liable to be easily displaced. Neither the French, Germans, nor Americans, ever use such a ridiculous *advantage* as it is called. They use one back sight, which is indeed most certain ; and the front sight should be placed as near the nose end of the barrel as possible, and not, as I have occasionally seen them, two or three inches off ;—this could never have been invented by a *practical* gun maker, or even by a practical rifleman.

A rifleman should first fire from a rest, at a short distance, to ascertain the straight line of his sights ; after which he should ascertain the elevation of his rifle at point blank ; by which means he will elevate or depress, according to the distance he is from the object he fires at. A young rifleman should never accustom himself to fire from a rest after he has ascertained the nature of the sights, &c. but should practise the best position to insure steadiness. Firing at a target fixed against a bank of earth, sand, or chalk pit, has given me a much better opportunity of correcting errors, than firing at a small target alone in the middle of an open field. To ascertain the exact elevation or depression of a ball, place a small object either above or below the bull's eye, or centre of the target ;—by firing at various distances, the elevation or depression of the ball will be perceptible, and, by taking aim accordingly, you will obtain the

greatest accuracy. I suggest these hints to the young practitioner ; and strongly recommend him to embrace every opportunity to practise ; to make remarks on every variation that occurs ; and, by continually noticing the deviation of the ball from its intended object, he will ascertain with precision, and be enabled to rectify every error that occurs, till at last he becomes a good shot.

I wish to caution the rifleman never to be in too great a hurry in loading and firing. I have found one shot in a minute as much as I could fire to keep myself steady, and to perform every motion methodically ; and let him rest assured, as a general principle, that loading properly is much more advantageous than loading expeditiously.

When the sun shines strongly in the face, the brim of the hat is a great protection, as the rays are too powerful for the eyes, unless shaded with something. In ramming down the ball, the air will sometimes force the powder into the touch-hole very hard, which will occasion the rifle to hang fire, or flash in the pan, and not fire the powder in the barrel, particularly in joint or patent breech barrels, as the narrow chamber at the bottom of the patent breech is forced by the powder and the air which the ball drives before it so hard, that the rifle will hang or miss fire more than it will with a plain breech.

To prevent hanging fire, put a picker, made for that purpose, into the touch-hole whilst loading ; shut down the hammer on the picker, or the air will blow it out ; when loaded, take out the picker, prime, and with the picker force a little powder into the touch-hole. Be careful not to prime too full, as it will prevent the hammer going down, and occasion the prime to be lost, or the damp to get to the priming ; which will make the rifle hang or miss fire. A pin or small feather will be equally effective to stop the touch-hole when not provided with a picker.

I have been credibly informed, ‘ that the balls used by the Turks and the Arabs occasion much more terrible wounds than those used by European troops : they have attached to each of them a pedicle of iron or copper, which is united with the lead when cast. The iron wire, which is about an inch long, enters into the cartridge, and sometimes unites two balls together. They are besides ragged, and of a larger calibre than those of our pieces*.’ I do

* M. Larrey, in his “Memoirs of a

not pretend to dispute the authority—but I much doubt the effect. In pieces of ordnance, the bar or double shot, and the chain-shot, may, no doubt, do much more execution than a common ball, but in rifles and muskets, I am quite satisfied that no ball can carry true, unless it fits the tube, as I have frequently enforced.

It has always been considered that three-fourths, or a whole turn in the angle of a rifle in a barrel three feet in length, was the best for throwing a ball to a certainty. This mode of rifling is practised by the Germans, French, and Americans; and all the foreign rifles that I have ever yet seen are rifled according to that principle; and several English gunmakers are firmly of opinion, that one turn in four feet is the best angle possible. With these angles of rifle I never could fire at a long range to any degree of certainty. If I apportioned the powder to make it range at three hundred yards, I found the ball go very random; and from this I judged that the balls tripped over the top of the rifle, which caused it to fire as random as a common musket. In order to find out the cause of this evil, I rifled a barrel one turn in four feet; and, on trial, found that the nearer I came to the straight line, the more true and further I could range. I then cut it to one foot, one quarter turn, and found I could fire more true at a short distance than I could when more angle in the rifle. From this conviction I made a barrel two feet six inches, and rifled in one quarter turn. The experiment succeeded to my most sanguine expectation. I was perfectly satisfied, that I could range further, and more true, than in any previous trial, and with less elevation. In loading also, the friction is not so great, and the ball is not so much impeded in coming out of the barrel, by the angle in the rifle more approaching to the straight line."

RIG. A horse is so called upon whom the operation of castration has been ill performed; by leaving one of the testes, or so much of the epididymis, behind, as enables him to become exceedingly teasing and troublesome to mares, either in the field or stable.

RING-BONE. A large swelling on the lower part of the pastern, which generally reaches half way round the fore

part, and, from its resemblance to a ring, has an affinity to a bone spavin; and, for the most part, proceeds from the same cause. The external cause of a ring-bone is often a strain in the pastern, from hard riding on dry roads; or owing to the pastern having been wrung in deep clayey roads, either in travelling or at grass. These often produce ring-bones. Yet some horses are naturally subject to ring-bones, especially those that are large and bony about the pasterns. When a ring-bone appears upon a clean-limbed horse, it is seldom so dangerous as when it happens to horses that have large bones, and are fleshy in those parts; for when the swelling is removed, the stiffness often remains.

A ring-bone is always easier to cure when it appears distinctly round the pastern, than when it spreads downwards towards the coronet; for then it is apt to affect the coffin joint, if it does not derive its origin from some strain or defect in that joint originally; in which case the cure will be uncertain, and sometimes impracticable, when a callosity is produced under the round ligament that covers that joint, and even when it happens more externally; it proves also dangerous, when it unites with or spreads the ligamentous substance that joins the hoof to the flesh; it is apt to turn to a quittor, and in the end to form an ulcer under the hoof. A ring-bone that rises on the pastern is easily cured when it does not run down towards the coronet.

Gibson says, the ring-bones that appear on colts and young horses will often insensibly wear off themselves, without the help of any application; but when the substance remains, there needs no other remedy besides blistering, unless when, by long continuance, it is grown to an obstinate hardness, and then it may require both blistering and firing. The swelling may proceed only from the tendons, which sometimes is not easy to be distinguished from a true ring-bone, except only that a true ring-bone is less painful, unless it proceed from the coffin-joint. In this case, blistering alone generally proves successful; and it is to be renewed two or three times, according to the urgency of the symptoms. But in a true ring-bone, where the substance is hard, like a piece of flint, and altogether insensible, and without pain, firing is the only thing to remove it.

Gibson, in order to fire a ring-bone successfully, advises the operation to be

Military Surgeon:" in which he states that many soldiers came under his direction, wounded with balls of this description.

performed with a thinner instrument than the common one ; and that the lines or razes be made not above a quarter of an inch distant, crossing them obliquely somewhat like a chain. He directs us to apply a mild blister over all, and when quite dried up, and before the hair is grown, to lay on a charge of yellow rosin and bees-wax, &c. melted together and

spread over the pastern-joint, covering the whole with flocks, or with the stuffings of an old saddle. As soon as the horse has rested two or three days in the house, he advises us to turn him out to grass in some dry smooth pasture. The same method, he says, is to be followed when the ring-bone rises towards the coronet, or coffin-joint.

ROACH is a handsome fish either in, or fresh out of, the water ; it inhabits many of our deep, still rivers, affecting, like others of this genus, quiet waters. It is gregarious, keeping in large shoals. It has a small head, a leather mouth, which is round, and also small, with the teeth in the throat ; large eyes, the circle of which resembles gold colour, and the iris red, particularly whilst in perfection, as they may also be known to be by the smoothness of the scales, which, when out of season, feel like the rough side of an oyster shell ; the side line bends much on the middle, towards the belly, and the tail is a little forked. It is so silly a fish that it has acquired the name of the water sheep, in contra distinction to the carp, who for his subtlety, is termed the water fox. The proverb of “ sound as a roach,” appears to be not peculiar to this country ; the French have the same idea, who compare people of strong health to their *gardon*, our roach, and yet this fish is not more distinguished for its vivacity than many others.

This fish is in little esteem, from the quantity of bones ; the flesh is, however, exceedingly wholesome, and the roe, which is green and boils red, peculiarly good. Soup made of this fish is excellent. There is a kind of roach in some ponds and standing waters that is very flat, having whitish eyes and fins, and the tail much forked ; it is supposed to be bred from the bream and roach ; they never grow large, and are good for nothing. Roach differ much in goodness, according to the rivers they are taken from, but none of the species are good in ponds ; in many of the streams they are taken of two pounds weight, but the preferable size for eating, are those of about half a pound, and, probably, were they not so common and numerous, would not be so much despised as they now are.

Walton speaks of the largest roach in the kingdom being in the Thames, where many have been caught of the weight of two pounds and a half ; and, in the list published some years ago, mention is made of one which weighed five pounds.

The roach delights in gravelly, sandy, or a kind of slimy marl bottoms, under a deep, gentle, running stream : in summer they often frequent shallows near the tails of fords, lie under banks among weeds, (especially when the water is thick,) under the shade of boughs ; and at, or opposite, the mouth of a rivulet, or brook that empties itself into a larger river, the best roach are generally to be met with ; as winter approaches, their haunt is changed to clear, deep, and still waters.

The roach spawns the latter end of May, (according to the Elements of Natural History, it produces upwards of 54,000 ova, feeds on aquatic plants and vermes, and is preyed upon by the larger fishes

R O A C H

and water fowl:) for, three weeks after spawning, they are unwholesome; they recover themselves in July, and get good about Michaelmas, but are in their prime in February or March.

Many ways are recommended to catch this fish by angling. When in deep waters, near piles of bridges, flood-gates, &c. in hot weather, a May or ant fly is to be sunk by a little lead, within a few inches of the hook, near the sides of these posts or piles: this is to be pulled up very leisurely, a roach will generally attend the fly to the surface, there gaze on it for a moment, and then take it.

Stern fishing is by fixing a boat (for without, roach of any size are hardly to be caught) to the stern of a vessel returned from a voyage, whose bottom is foul and furnished with insects, which the fish greedily devour. The line should not exceed four feet, the float be within a foot of its top, and the rod very short; the bait to be three or four gentles, and dropped close to the ship's sides, not allowing the bait to swim more than eight or nine feet: begin at the first of the ebb tide, and for two hours the roach will bite freely.

To London bridge, and among the shipping below it, numbers of roach return in June and July, after having been up the river to spawn, and many of them are taken by means of a strong cord, to which is fastened a leaden weight, more or less, according to the strength of the current; a foot above the lead, a twine twelve feet long is joined to the cord, and to this twine, at convenient distances, are tied a dozen hair links, with roach hooks at their ends; these are to be baited with white snails or periwinkles, taken whole from the shell; the twine with the hooks is then first thrown in, that the stream may run it out its full length without entangling, the weight is then let down to the bottom, the fisherman holds the cord in his hand, and readily feels the biting of the fish, which is a signal to pull up the weight and line: frequently five or six, and seldom less than two or three, are taken at a haul, and they are, for the most part, very large: by standing in a lighter or lug boat, that is fastened to some vessel, this method can be best managed.

Some, in both pond and river, chew and throw in white bread, baiting with one large gentle, and fish six inches from the bottom: others, for winter fishing, when maggots (which are, beyond question, the best winter bait) are not to be had, use greaves from the tallow-chandlers, thus prepared: put them in cold water upon the fire, in pieces of about half a pound, let them continue until near boiling, when they will become white and soft; the whitest are to be reserved for the hook, and the rest used as ground-bait; the hook should be No. 6, and the bait either touch the bottom, or lie within one inch of it. Earth bobs and gentles, are famous winter baits, using boiled malt or fresh grains as ground-bait; in autumn, roach will take white paste, on a hook No. 9; in summer, snails and flies, under water, for they never rise at a fly like the dace. In April, cadis, oak-worms, and small red-worms. the latter especially in windy weather.

The season for roach fishing in the Thames (in which, near Shepperton and Hampton, many have been taken above two pounds weight) begins about the latter end of August, and continues longer

than most anglers (of which the Londoners for roach, are perhaps the best,) choose to brave the weather. In the summer they live on the weed, and do not quit for the deeps until it becomes putrid, which depends on the drought or wetness of the weather, much rain hastening its rotting; the fishermen all along the river are at this time upon the watch, and the instant the roach move, sweep them away with their drag-nets; it requires, therefore, skill in the angler to attend to this critical period, or the objects of his diversion are by wholesale carried to Billingsgate.

The tackle for roach must be fine and strong: by some are recommended a rod not exceeding six feet, a line, somewhat shorter, of six hairs, and about two feet of gut for the bottom links, a swan quill float, and hooks No. 11 or 12, (although, if not made of stouter wire than those usually sold of those sizes, No. 9 or 10; roach rarely break the hook in the water, yet the beard of these very fine hooks is frequently broken at the time of being extracted by the fish's springing about, and their mouths being so bony;) the baits, gentles, red paste, boiled wheat, or malt: the gentles of a pale red colour, with a white one, are often taken both by roach and dace with great eagerness; red paste is also excellent. (The angler is cautioned to be provided with several sorts of baits, as these fish are capricious in their feeding, and, in the course of a morn or eve, will shun what they had just before taken, and, in a short time, again with avidity seize that, rejecting all others.) Great attention must be paid to strike quick. In using boiled malt or wheat, select those corns that are soft and plump; one is sufficient: put the hook into it so that the point may lie where it is burst and the white appears; the fish will be more readily hooked. The ground-bait should be boiled malt, with which some holes may be previously baited; if that mode is not adopted, whilst fishing throw it in, from time to time, sparingly.

The following method is mentioned as being more generally successful than any other. A rod, rather stiff, which will strike true, and in length, proportioned to the place where used; the line, a foot shorter than the rod, strong at top and tapering to the bottom, which must be fine, smooth, silk-worm gut, dyed brownish, or of a water colour; the hook No. 8; one small shot is to be put on the line, about ten inches from the hook, the rest (large) close together, four or five inches higher up, sufficient so to sink a swan quill float as that its top may just be discerned above the surface. When a spot is fixed on, plumb the depth, and the float is to carry the bait not more than one inch from the bottom, which must be level, the run gentle, and the water deep when clear, or in winter; at other times, when the water is coloured with rain, and especially if in the rain, the bait should swim from about three quarters of a yard to the depth of a yard and a half: if in a tide, or where streams rise or fall, the depth, by means of the plummet, is to be ascertained and observed as above directed. At the top of the swim throw in three or four balls of ground-bait, (about the size of an egg, and a pebble in each to sink them, and which is to be made with large wheat bran, enough sweet coarse flour to bind the bran, and scalding water; this

is to be so kneaded as to be sufficiently stiff to prevent its breaking in sinking to the bottom, and yet so as to fall gradually to pieces soon after it reaches it,) and care should be taken so to throw the balls as that the bait may rest as directly over them as possible. The bait is a grain or two of salmon's roe, or a small piece of red paste in imitation of it, (which is as good as the roe, and will continue on the hook a long time, if properly made, even if the fish is struck at and missed, and there be no cotton mixed with it.) A sharp eye must be kept on the float, and the least nibble is the signal for striking; if a full-sized roach is hooked, he should be played, for they struggle much; and, although many accustom themselves to a single hair line, yet, where the fish run large, it is not always to be depended upon. A landing-net is useful in getting out the big ones, and by drawing them two or three yards below where the ground-bait lies, there will be less disturbance to the fish beneath.

Should the water not be very clear, two hooks may be used, by neatly looping a piece of gut, two or three inches long, with a hook to it, close above the single shot, so that it may stand out from the line; bait it with gentles, and the lower hook with the paste or roe; and if they are shy, with a gentle slipped into the bend of the hooks, and a grain of the roe or paste upon the point.

Roach are also to be caught in warm weather with cadis and natural flies under water; and will, sometimes, in warm, close evenings, a little before sun-set, take an artificial fly at top, but then, a well scoured gentle must be placed at the end of the fly. In mild, cloudy weather, the roach will bite all day; in hot, morning and evening; and in cold, the middle and warmest parts of it.

Large roach, after having some flour thrown upon them, should (without scaling) be laid upon a gridiron over a slow fire; as they grow brown, a cut, not more than skin deep, is to be made along the back, from head to tail, and then replaced on the fire; when sufficiently broiled, the skin and scales will peel off, and leave the flesh perfectly clean, and very firm. The belly is then to be opened, and the inside will come away more cleanly than if water had been used before broiling, which washes away all the firmness and flavour of any fish. The sauce to them is anchovy and butter.

ROAD-RIDING. When persons are pursuing their business, pleasure, or recreation on the road, precise formality and attention to the strict rules of riding would interrupt their enjoyment, and divert them, in some degree, from attending to the various objects that present themselves, the conversation of a companion, or the delightful prospects continually opening to their view. Therefore, in this system of riding, thought and attention, more than regulating the pace and directing the road, are rarely indulged; and this, after due practice, becomes habitually instinctive. The small share of science requisite to direct the horse that is quiet

and good tempered, induces many to think it unnecessary to learn to ride. And here I shall observe, that those who have been taught the true principles of riding, and practised it till it becomes easy and habitual to them, can never depart from it so far as to render themselves conspicuously awkward, or in danger from the ordinary occurrences that may happen.

The military cannot adopt this ease and indifference, because the soldier's attention is always occupied. If the horse only walks he has an exact situation to keep, a file to cover, and preserve the line with the flanks; his ears must be atten-

tive only to the commands of his officer, and his hand have the horse in readiness at the instant to execute with precision. Thus the military are necessitated to ride with more formality than is pleasant or necessary for gentlemen on the road.

Though I admit, for the sake of ease, the participation of company and the surrounding objects, deviation from precise rules, yet I do not mean to vary the system or substitute another for the road.

I think there are several systems, which, though called by some good riding, would be very degrading and unbecoming gentlemen to imitate. For instance—the men who shew horses for the dealers, are generally thought to ride well. They must necessarily be men of firm seat and void of fear; but their only conception of good riding is, to make the horse go straight and as fast as they can. To display themselves and horse to the best advantage, they sit as stiff as possible, divide their reins, and place their hands low, and endeavour to keep the nose down, and drive him forward with the spurs. Many of their horses being, what is termed, raw; that is, but little accustomed to be ridden, and only in this awkward manner; would not shew to so much advantage, by any other method; but this method should not be a pattern for gentlemen.

The next description of riders I shall notice, are gentlemen's servants or grooms. From their occupation one would suppose these men would ride well, and without doubt some of them do: but how frequently do we observe the labour and difficulty others of them have to manage a quiet horse. Many of the spectators conceive the horse to be exceedingly violent and unruly, and admire the boldness of the rider; when, in fact, it is too frequently the unskillfulness of the horseman that occasions the horse to be so impatient and restless: for when a horse is well fed and little worked, many will shew an eagerness to get on; and if the rider has not a mild effective hand to restrain the horse, the harsh hand, though it checks, yet it irritates, and the horse becomes more impatient and restless under the severity of the hand. This frequently provokes the rider, and he applies the spurs, which make the horse more violent and ungovernable. I do not know but some gentlemen may be proud of displaying their horsemanship in this manner; they will only, however, draw the admiration of the ignorant, for nothing can

distinguish the horseman or gentleman so much, as the elegance, delicacy, and ease with which he makes the horse obedient to his will: not but there are violent, hot, and impatient horses, who will be restless under the best of hands—but the good hand restrains with mildness and ease, and the horse's temper by degrees cools and subsides, while the violent hand frets, provokes, and defeats its own intention.

The rudiments of the art being once known, when on the road, no more is to be applied than will, with the greatest ease, facilitate our design; and where you require no more of the horse than to perform the natural paces, he will walk, trot, and gallop with the greatest freedom. The rider participates the like ease or unrestrained liberty: so that road-riding bears the same analogy to military-riding, as military-riding does to manege-riding, laying aside all unnecessary restraint when we can perform to our satisfaction without it.

Let me explain what I mean by unrestrained liberty, lest those who have not confirmed the principles of riding by sufficient practice, may throw off their restraint too soon, and fall into errors, that might not only be awkward, but, under some circumstances, dangerous. The position of every part of the horseman is to be preserved, the same as in the military seat; but the restraint to be thrown off is, first that of the mind; for having nothing to perform but what by your former practice you can now execute, without a thought, your attention is amused by various other objects:—next of the body; for the exertions of the horse, in the manege lessons, are drawn from him by a similar exertion. In the rider, exertion now becomes unnecessary, since you require no more than the natural paces of the horse, performed with the greatest ease and freedom to himself; and your whole system becomes more relaxed, and falls into an easy flexibility, pleasant both to yourself and horse. But this ease or inattention is not to suffer unseemly habits to take place, such as the back or shoulders to get round, the hand to shake, the legs to dangle and beat against the horse's sides, or placed considerably forward to bear in the stirrups. These errors may, more or less, creep on a person who has not confirmed the principles by sufficient practice; but when habits of good riding are firmly established, the ease and liberty he assumes will not exceed propriety, risk his security, nor aban-

don or baffle the horse ; his hand will keep its situation and properties, though the body be turned to any extreme for the purpose of viewing, conversing, and the like. Nor will the body, by any freedom it takes, throw itself out of balance, nor take the liberty at a period, when it cannot be done with safety.

This freedom and ease, so desirable and universally admired, is affected by every person who is in the habit of riding, but with this difference ; some unite system with negligence and ease, and others negligence and ease without system.

This freedom and ease, which negligence will naturally fall into, I have known masters endeavour to inculcate before the rudiments and principles of riding. But, however specious and pleasing such a mode may appear to the pupil, I will be bold to say, it is beginning at the wrong end ; and if the pupil has not aptitude, which practice will improve, such a mode of instruction will never make a horseman.

Since the rider's ease and convenience is the principal consideration in riding on the road, it is admissible when the trot is extended to an unpleasant roughness, to ease the jolting by rising in the stirrups. This is so soon learned, that it scarcely needs a description, since none in the habit of riding, but actually accomplish it ; and it is generally the first thing the young untutored horseman aims at, though a ridiculous awkwardness frequently attend some at their first attempt, and many imbibe unseemly habits, which they cannot easily abandon.

Now, to ride with elegance and ease, the following remarks may be useful ; or at least, may caution you to avoid ridiculous habits. Let the trot be extended to such a degree, that the action of the horse may raise you considerably from the saddle, while the sitting becomes rough and uncomfortable. To attempt it before would be not only unseemly, but difficult : for the faster the horse trots the easier it is to rise. It is the action of the horse, and not any effort of your own that should raise you. Then if you bring your body a little forward when the action of the horse raises you from the saddle, a greater portion of your weight will be received in the stirrups, by which you ease your return to the saddle.

Now the next remark I shall make on a subject which is so easily accomplished may be thought tedious by some, yet to others it may be gratifying. I have observed

that a horse leads with one or the other foot in the trot, the same as in the gallop, and the feet beat the time of *one, two*. The foot which the horse leads with, determines the one you are to rise to, and you cannot change the order if you would by rising to the contrary ; but, if the horse changes his foot, you are necessitated to change with him, till which, your time is broken, and you are disunited, so that you rise and fall with his leading foot ; which foot, beating the time of two, you rise at one, the leading foot being in the air, and fall at two, when it comes to the ground. Thus the horse renders it perfectly easy to you by raising the body and marking the time, which, if you do not counteract by any endeavours or efforts of your own, you soon fall into.

Beginners are apt to try this in a slow trot, in which the action of the horse does not sufficiently raise them, and they endeavour to raise themselves by the stirrups. This is labour instead of ease, and such are said, in derision, to ride faster than their horse. The rise and return of the body are to be smooth, even, and as regular as the beats of the feet, if you, through inattention lose your time, you get bumped upon the saddle till you fall into it again. Though this is called rising in the stirrups, it is to be remembered that no great stress or dependance is to be made on them.

A person can rise to the trot without the assistance of the stirrup, but not with so much ease to himself. It is, therefore, to be used as such and no more. Thus, when the body is raised from the saddle, the feet have a momentary pressure in the stirrups, which subsides as the body returns to the saddle. If you make more use of the stirrups than this, you risk your own safety ; for I have observed, that an improper use of the stirrups occasions many persons to be thrown, and a horse shying, or suddenly turning round, would occasion such a disaster. The rising of the body is not to be accompanied by any motion of the arms or lifting the shoulders ; nor is the small forward inclination of the body to occasion any roundness in the back ; this is invariably to be hollow, not only for the seemliness, but for the safety of your person ; likewise the action of the body must not cause the legs to move ; some suffer their legs to swing backward and forward with the motion of the body ; but care must be taken to avoid all unseemly habits : the legs are certain to be in their

natural and most proper situation, if the stirrups hang perpendicular, and the ball of the foot resting on them ; from thence they are never to move, unless to apply the calves or the spur. And, though indifference and inattention may permit them to deviate a little, yet those who have confirmed the true principles by sufficient practice, never suffer them to remove beyond a certain medium, which otherwise would expose the seat to disaster.

The body must have no assistance from the bridle to accompany the action of the horse, the hand must be held steady, and the reins of that determined length which preserves a communicative correspondence between the hand and mouth ; and though the rising of the body diminishes the effective operation of the *appui*, yet still there remains a proportion according to the goodness of the rider's hand, and the quality or fineness of the horse's mouth ; for I consider the system of riding, which I am now treating on, to be the practice of gentlemen, in their daily recreation on the road, which, consequently, should be divested of every thing that is unpleasant and fatiguing. Therefore the horse should be properly broke, and not put to such extremes as would require an arduous support from the rider to assist his performance ; such as trotting-matches and racing. The horse then, rode at no greater rate than he can accomplish with ease to himself, will carry his head up and play upon his bit, and be as obedient to the operation of the hand and aids, as this system of riding can possibly require. From these remarks, I think no one can mistake wrong for right, which is all I think necessary to say under this head.

ROAN. See COLOUR.

ROARING. We take the liberty of quoting what has been said on the subject by Mr. Percivall, in his scientific, lucid, and excellent Lectures :—

“ Roaring (this gentleman justly observes) may be defined to be, a peculiar unnatural sound, made in respiration. To one whose ears are familiar to this sound, any attempt to describe it may appear supererogatory ; and to one who is unacquainted with it, no description can convey just notions of all the variations of it that occur in practice. We are not only told of *roarers*, but we hear of *pipers*, *wheelers*, *whistlers*, *high blowers*, and *grunters* ; a cant in common use among our horse-dealers and horsemen, of the

vulgar meaning of which no professional man should shew ignorance. And though these cases are often confounded in practice, and not seldom, I believe, are despatched without any discriminative investigation at all, still the veterinary surgeon ought to be prepared to encounter these monsters at all points ; and therefore I shall venture on an outline of the character of each of them, in relation to the degree and peculiarity of the sound, though I am apprehensive I shall but faintly trace those nice points of distinction, which the appellations themselves appear to demand.”

Pipers, according to Mr. Percivall, do not belong to the genus of roarers, but may be justly considered as one of the stages of broken wind.

The *Wheeler*, though admitted to be a species of roarer, is not so perhaps in the strict sense of the term, since there is every reason to believe, that the affection that causes the wheezing noise which the animal emits when labouring under this disease, is seated in the lungs. This wheezing differs from the loud sonorous noise made by other roarers, and may be compared to that painful difficulty of breathing which distinguishes the human subject when labouring under that disease called asthma. The wheezer differs also from the roarer, inasmuch as the wheezing is a common attendant upon rest, and consequently may be often heard in the stables ; in all cases, it is distinctly audible as soon as the animal is walked or trotted out.

The *Whistler*.—The note of the whistler is too well known to need any lengthened description in this place : it is a sibilation which resembles the noise made by “ the northern blast rushing through a crack in the window-shutter.” It appears to be produced by a continued rush of air through some narrow pass in the trachea or larynx ; it is seldom or never heard, therefore, in a state of quietude, nor is the common practical test of roaring infallible here : when this disease is suspected, the best mode to ascertain it, is to gallop the horse up hill. “ One well-marked instance of this variety of roaring (says Mr. Percivall) I have met with in the human subject : a young gentleman, an acquaintance of mine, who had suffered much from a violent attack of *cynanche laryngea*, used to fetch his breath so hard, though with more apparent, than actual, labour, in walking fast up hill, and with a noise so in unison with the pipe of the whistler, that, when I first heard him, I

turned myself suddenly round, under an apprehension that a horse of this description was approaching at full speed at my heels."

The High-blower.—A horse of this description draws his breath hard, under moderate exertion; he makes an unnatural puffing noise at every respiration, which a by-stander would suppose was produced by the nostrils. But there is reason to believe, that, in genuine cases of this kind, the impediment will prove to be in the passages of the head; whence the dilated nostrils, and the sonorous puffs from them, when the animal's breathing is accelerated.

The Grunter.—A horse, thus affected, utters deep-seated murmurs, or sounds that may be compared to the grunting of a hog. This noise in the breath is not always generated under ordinary exercise; it is often produced by a sudden respiratory effort, the effect of some unexpected event: a sudden application of the spur, while riding; or an unlooked for lash of the whip, while driving; will often call forth one of these ejaculations. This affection, however, must not be confounded with the occasional grunts of a horse whose bowels are distended with air or food, or whose body is loaded with fat for want of work, nor mistaken for those sounds which proceed from a tight collar: these are only temporary, and often arise under ordinary exercise, whereas, *grunting*, in the sense it is here meant to be understood, is mostly a permanent and irremediable annoyance, and is only produceable with laborious or violent respiration. "In my opinion (says Mr. Percivall) this is a pulmonary disease—a sequel of inflammation. This species of roaring very often escapes observation."

The confirmed roarer utters his complaint more clamorously than any of these: he is so vociferous, when his respiratory actions are violently exerted, that he unequivocally proclaims, "in loud and inexpressible boations, his distressing malady to all around him."

For the purpose of producing that sound in the breath, which is the test of roaring, it is necessary, generally speaking, that the animal be excited to make a sudden or forcible respiratory effort. Nor will it be amiss here to observe, that it has been a question of late, whether roaring is an act of inspiration or respiration: some steadily maintain the old position, and say, that it consists in an expiratory effort; while others venture upon new

ground, and contend that it is an accompaniment to a violent inspiration. As frequently happens in like disputes, both parties may be in the right, and that the circumstances of the case only require to be examined to prove it; for instance, if the horse is a high-blower; or, in other words, if the impediment to the passage of air is seated in the chambers of the nose, the sonorous puffs we hear are so many expiratory acts; whereas, if the obstruction is in the trachea or bronchiæ, the roaring sounds are sighs or *inspirations*; and when the glottis is narrowed, and sometimes, indeed, when the trachea is, the noise may be produced both by the ingress and egress of air; then, however, it is generally loudest in inspiration. Any instantaneous shock or cause of alarm, hard galloping, especially up hill, and the excitation of coughing, are the common trials to which the animal is subjected to make him roar; indeed, the most ready mode of proceeding is that in vogue with our *copers*; which consists in making a feint to strike the horse upon the body with a stick or whip, and in doing it suddenly and unawares, and with as much earnestness as if you were actually going to knock him down, at the same time that you are holding him fast and short by the head with the left hand. Although these are perhaps the readiest expedients which can be adopted, yet absolute dependance cannot be placed on them: they are inconclusive; and the only satisfactory test must result from actual and continued corporeal exertion. The practice of putting suspicious horses in harness, and making them draw heavy loads up hill, is, after all, probably the best trial that can be made of their wind. The simple act of coughing is a very indecisive test of roaring; and, now and then, the larynx being in part, or wholly, bony, coughing cannot be excited at all by compression of it; "though this to an experienced tact, the very inflexibility of it is a presumptive proof that the disease is present."

"In entering upon the *ratio symptomatum* of roaring, (says Mr. Percivall) I may observe that it bears an analogy to croup, both in relation to the proximate cause, and to the parts affected; but we must be on our guard not to carry this comparison too far, or it will lead us into serious pathological error; for, although I may broadly assert, that the proximate cause of roaring is founded in *cynanche trachealis*, the inflammation does not put

on that type which makes croup so formidable and dreadful a malady in the human being, nor is it confined to the years of immaturity. When roaring does happen in colts, it generally exists as a mode of termination of strangles: the catarrhal affection that accompanies strangles, now and then continues long after the wound in the throat is closed up, leaves the laryngeal membrane thickened and perhaps ulcerated, and thus lays the foundation of this disease."

However, not only catarrhal affections, many that are considered as inflammation of the lungs, terminate in roaring; and, in fact, the symptoms of this species of membranous inflammation are not, at all times, so diagnostically marked, as to enable us to steer clear of this error; and what renders cynanche trachealis infinitely more obscure and insidious in its attacks and course, is, that, in the majority of cases, the inflammation is of that mild chronic type which is apt to escape the notion of those to whom we must look for the first reports of ill health; and hence it is that so many roarers are continually met with, in whom nothing is known about the inflammatory action to which they owe their present malady. Hence then, since cynanche trachealis is the common forerunner of roaring, and that upon our knowledge of the one must principally depend our competency to treat the other, it may not be amiss to detail in this place, the symptoms by which its existence is indicated.

In the first place, it may be observed, that, under an acute attack of cynanche, the horse breathes short and quick, but, at first, generally with more pain than embarrassment; he emits sudden and often sonorous puffs from his tense and dilated nostrils, and, at every inspiration, exposes to view, the septum, deeply imbued with its own blood: his pulse is small, hard, and frequent; he has paroxysms of coughing, occasional guggling or rattling in the throat, and defluxion of pus from the nose; while the lightest pressure upon the larynx, or grasp of the windpipe, very much annoys him, and induces the cough: added to which, he has the other ordinary concomitants of febrile commotion. In some cases, when the inflammation is at its height, spasms of the larynx come on, during the continuance of which, respiration is carried on with so much distress, that the animal is, every now and then, threatened with suffocation; or the breathing may become embarrassed from

a thickening of the membrane where it lines the glottis.

Did the disease generally manifest itself in this acute form, it would remove all doubt as to the nature and tendency of the case; but it approaches and creeps on in that insidious way, that the foundation of roaring is absolutely laid before it is discovered that the proximate cause, inflammation, has been present in the air passages; at least, so it is with the generality of cases. Were the animal, from the first, placed under the eye of a skilful practitioner (of which, by the bye, there are very few to be met with) he might perhaps be able to discover symptoms or signs that would excite suspicion of what was going on: such as an unusual protraction of, or a fresh attack very like, a chronic catarrh, accompanied with soreness about the throat, perhaps some rattling or guggling noise in it, and a hard cough; disturbance of the respiration and pulse—short wind; little or much purulent defluxion from both nostrils; and increased susceptibility of the trachea and larynx on compression.

The causes of cynanche will, of course, be such as give rise to catarrhal and pulmonary affections in general; indeed, it often turns out to be an extension or sequel of the former, and may exist as a precursor of the latter. But there is one fact connected with its etiology, which, if kept in view, will frequently throw much light on the nature of the case, and enable us to form in our minds, a pretty correct diagnosis; and that is, that a large proportion of these subjects are harness horses—horses whose necks have been rainbowed by the bearing-rein for hours together, whose larynges have been compressed, and tracheæ distorted, by this unnatural and constrained position of the head and neck. It may be also remarked here, that simple flexion of the pipe itself, from the forcible and continued incurvation of the nose towards the chest, has been known to produce roaring.

Mr. Goodwin, veterinary surgeon to his majesty, stated to Mr. Percivall, that, during his professional avocations at St. Petersburg, his attention was especially drawn to several horses, who by himself and others had been declared to be roarers, in consequence of their having got rid of their complaint in the manege. These horses, it would seem, therefore, roared from unnatural flexure of the windpipe; and this distortion the Russian system of equitation, which consisted

in the continual elevation of the head, and projection of the nose, was well adapted to counteract, and in process of time remove. The inconvenience at first is only temporary; the intervals of relaxation give the parts an opportunity, for a time, of recovering their wonted tone and shape; but repeated and long continued acts of such violence may so enfeeble their elastic powers, that permanent deformity of the larynx or pipe may result, and the malady become irremediable.

Mr. Sewell very justly censures the practice of buckling neck straps, or throat-latches of collars and bridles, tightly: it is obvious, that all this is uncalled for and wanton mischief, not to add cruelty.

Mechanical injury, then, is one of the most frequent causes of roaring; and it may be either a *proximate* one, or it may be an *exciting* cause, as in the case of cyanche. It is said by some, that the practice of making horses cough, by compressing their throattles, is apt to induce roaring.

"Having thus far (says Mr. Percivall) considered the symptoms and exciting causes of cyanche, and examined one of the immediate or proximate causes of roaring itself, let us pass on to particularize, and endeavour to account for the origin of, others which dissection has discovered to us. Cyanche may terminate in a variety of modes, and in one or other of these terminations may be said to consist almost all the proximate causes of roaring that remain to be described. The most common effect of inflammation of the air passages, is a thickening of the lining membrane; which, if it happen in that part of it that lines the chambers of the nose, will give rise to that thickness and pursiveness in the breath in which consists the complaint of the high-blower. But the part where this increment offers the most impediment, and consequently creates the greatest inconvenience, is the glottis, the figure of which is very sensibly diminished by the morbid thickness of its lining; and thus is produced roaring, or confirmed roaring, or, if the opening be much contracted, whistling. Though the calibre of the trachea may be also equally diminished by this interstitial deposit into its membrane, it admits of some doubt in my mind whether this, of itself, can be adduced as a proximate cause of roaring; but if the same deposition pervades the bronchie, it may either be productive of thick wind or of wheezing. In horses in

whom this state of parts has existed long—probably several years, the membrane, in consequence of undergoing a gradual organic change, assumes a variety of morbid aspects: it may be found simply thickened, or thickened, opaque, and white; or thickened and indurated, or corrugated, or reticulated, or tuberculated, or ulcerated: these last alterations, however, may proceed from another source. We now and then hear of cases, of most of which I am inclined to think that this is the pathology, that become roarsers by *metastasis*: Mr. Coward, veterinary surgeon, Royal Artillery, related to me one of a horse of his own, in whom extensive tumefaction, and suppuration of the jugular vein, followed the operation of venesection, which was succeeded by abscess of the parotid gland, and terminated by disease of the larynx and permanent roaring.

The next morbid appearance met with, in point of frequency, is a band or distinct layer of adhesive matter, which is thrown across, or adheres to, some part of the larynx or windpipe. The situation and disposition of this solid effusion vary much: sometimes a band is simply formed across the passage, or that is joined by another, generally coming from the back parts by which the canal is divided into two or three passages; at the other times the deposition is seated in the cellular interstices between the muscular band and the rings, so as to protrude the former, and thus narrow the main conduit. So that the adventitious substance here has not the disposition, nor does it put on the appearance, of that found in croup. This state of parts is also productive of confirmed roaring.

Tumours of any kind seated within, or in the vicinity of, the air passages, may, by partial obstruction or compression of them, prove to be causes of roaring. What is most commonly met with, is an abscess in the throat that presses more or less upon the epiglottis; and this occasionally creates very alarming symptoms, and would bring on suffocation and death, were not the operation, termed *bronchotomy**, had recourse to.

* "When the animal roars to that degree, that respiration, even in a state of quietude, becomes a painful or laborious duty, or that he is threatened with suffocation, we have recourse to an operation which consists in making an opening into the larynx or trachea, and has been named *bronchotomy*."

Another, and not a very uncommon cause of roaring, is a wasting, or, in some instances, a total absorption of one or more of the small muscles of the larynx.

A frequent concomitant, and occasionally a cause of roaring in old horses, is ossification, practical or complete, of the larynx: the thyroid cartilages commonly take on this change of structure; the others, however, in the advanced stage, often partake of it. But rarely do we meet with any bony accretion of the rings of the wind-pipe: now and then we detect osseous depositions in some of them; but I do not apprehend that any, or but little, inconvenience is thereby occasioned.

Doubtlessly there are other pathological varieties connected with the production of this disease. The chief considerations, however, are, that there must be contraction of the air passage, or partial obstruction in it somewhere; that, according to the degree of narrowness, and the situation of it, *cæteris paribus*, will be the kind and loudness of the sound; and that upon the power of restoring the capacity of the passage must depend the efficiency of our remedies towards removing the evil. With a view of ascertaining the degree of constriction necessary to the production of roaring, and of watching the symptoms of pain or uneasiness evinced by it, I passed a ligature of broad tape around the windpipe of an ass, about one third of the way down the neck. The tape was first drawn with moderate tightness, and the animal roared when made to trot; the pipe was then compressed to about half of its natural calibre, and the animal whistled: in both states the sounds were loudest in *inspiration*. At length, I drew the ligature as tightly as possible; in about a minute afterwards the animal, after having staggered about much, fell, struggled violently, and, apparently in great agony, expired in a sudden convulsive throw of the body upon one side, about two minutes after he had fallen. I found the membrane of the windpipe reddened and covered with frothy mucus: the passage was *not* completely obliterated: I could still pass a crow's quill through the constricted part of it."

Mr. Coleman has asserted, in his Lectures, that roarsers are sound winded horses; and so far as regards the healthy state of their lungs, there is little doubt but this is the true state of the case; yet this amounts to nothing, since it is a fact very well known, that roarsers are always

more distressed in the chase than sound horses; and that they cannot bear to be pressed up hill. Not only are sound lungs very essential to a full and healthy respiration, but that a clear and unimpeded passage is also absolutely necessary to it; and that, however disproportionately large the calibre of the trachea may seem when contrasted with its narrow entrance, the glottis, a very trifling contraction of the former will create noise enough in the breath to convince us that there is a degree of embarrassment in the performance of respiration.

"Moreover (continues Mr. Percivall) I shall now shew that the lungs themselves may be the *seat* of roaring. Some years ago, a horse was treated by my father (who is the senior veterinary surgeon of the regiment) for violent roaring. The neck was repeatedly blistered; it was also fired, but no relief was given. So painful was it to hear this animal roar, when he was even led out of the stable, that bronchotomy was tried, but without benefit. At length the animal suffered so much from pain and distress in breathing, that, being in that condition useless, and found insusceptible of relief, he was destroyed. There was detected no thickening in the membrane—no disease whatever, in fact, of the larynx or trachea; but the lungs were hepatized throughout their substance, and the smaller divisions of the bronchiæ, in many places, so compressed, that they were hardly pervious. I know that this is not reconcilable with the opinions of the day; and therefore I set the greater value upon it: it is a case also that is admirably calculated to silence the trumpery of those who are continually persuading people that *they can cure* roaring horses.

Let us now pass on to the treatment of roaring. Some of my professional contemporaries have contended hard for celebrity with the obstacles that are encountered in this alluring field for experimental research; but they would have spared themselves much labour if they had (and it is generally the nearest road to a cure, after all) directed their investigations vigilantly, but patiently, to the *cause*, instead of the removal, of the disease. Which of them, I should like to know, can attenuate a thickened and indurated membrane?—or, which of them, by tying up a horse's head, and confining it for a twelvemonth in that position, can remove an organized band that crosses the passage!—in a word, which of them can pro-

ceed, *secundum artem*, to cure a disease, of the nature of which he, by his own confession or silence, is either doubtful or ignorant?

When a roarer is brought to us, then, it behoves us to take every means in our power to ascertain the special nature and stage of his disease; to which end, we ought to inquire narrowly into the history of the case, and make ourselves acquainted with every little circumstance connected with it, before we proceed to examine the horse himself; and in doing this, we must take care to attend to the sound that is uttered. Having formed our diagnosis, the treatment to be pursued will naturally present itself.

If it be a case in which deformity of the windpipe can be felt, and there appears reason to believe that it owes its production to forcible innovation of the neck, the continual elevation of the head and the confinement of it by side lines, or the frequent biting of the animal, so as to project his nose forward, are means well worthy of trial: we must not forget, however, that the success of this experiment will depend upon the duration of the complaint; nor must we overlook any inflammatory action that may be present in the system, which might prohibit such measures.

This, I believe, is but rarely the state of the case, however; almost always, if the affection be recent, have we to combat with inflammation of an acute or chronic kind; the remedies for which, as it often assumes the catarrhal form, I need but recapitulate here. Venesection is generally required in the chronic stage; but, if the cyanche be active, it is imperiously demanded:—the frequent repetition of it too, is an excellent practice. Active purgatives—nauseating and diuretic medicines in the intervals—and blisters along the whole length of the windpipe, that are kept discharging, are to be resorted to: no rules can be laid down for their judicious use; that must be left to the discrimination of the practitioners. When active depletion is no longer admissible, counter-irritation often proves of great service."

Having quoted the opinions of the ablest writer on the subject of roaring, which has yet appeared before the public, the reader will be thus enabled, I am willing to suppose, to place before his mind's eye as clear a view of the subject as it is possible at present to obtain; and will consequently be enabled to form an

opinion for himself, whenever a suspicion of roaring, in any of its forms, is entertained. By this proceeding, I by no means advise that he should attempt to act as his own veterinary surgeon; but be able to guard against the crude and fallacious notions of grooms and other ignorant pretenders. On the slightest suspicion of the approach of such a disease as roaring, I would call in the assistance of a skilful veterinary surgeon (and they are very rarely to be met with, as I have already observed) even if I had to procure him from the distance of one hundred miles.—Veterinary surgery, I consider as yet in its infancy, though there are not wanting pretenders enow to the science: men, calling themselves veterinary surgeons are numerously dotted all over the country, who profess to have been regularly initiated at the college, but whose gross ignorance of every thing like science cannot fail to become manifest, in the course of five minutes' conversation, to every man of common knowledge and common observation. These men, like attorneys, the moment a case is brought before them, begin to calculate on the best means of swelling up a bill; and in any disease or ailment out of the very commonest way, a man had better destroy his horse at once than place him under the care of such wretchedly illiterate and ignorant pretenders, but, at the same time, such voracious and insatiable cormorants.

As roaring is likely to be produced from low, wet, or marshy ground, and luxuriant pasturage, it may not be amiss here to observe, by way of elucidation, that horses thus summered, will become gross and fat; and, when taken up, are perhaps injudiciously managed:—their exercise and sweats may be too violent at first, and indeed a variety of causes may operate, under such circumstances, as well as under many others, to produce this not well understood disease.

ROCKINGHAM, FIRST CALLED CAMDEN. A bay horse, foaled in 1781, bred by J. Pratt, Esq. of Askrigg, Wensleydale, sold to P. Wentworth, Esq. who sold him to his royal highness the Prince of Wales; and was again sold, at his highness's sale, to T. Bullock, Esq. who sold him to Lord Barrymore.

Rockingham was got by Highflyer; his dam, Purity (own sister to Conundrum, Ranthos, Enigma, Riddle, Miss Timms, Maiden, and Rasselas), by Match'em; grand-dam by Squirt.

At Nottingham, August 3, 1784, Cam-

den won a sweepstakes of 50gs. each, for three years old colts, 8st. once round the course, (six subscribers,) beating Mr. Wentworth's bay colt, by Alfred, out of Rosebud; and Lord E. Bentinck's colt, by Highflyer. He was sold in the spring of 1785, for 700gs. to Mr. P. Wentworth, who changed his name to Rockingham.

On Monday, in the Newmarket second spring meeting, 1785, Rockingham beat Mr. O'Kelly's Serjeant, 8st. 4lb. each, B. C. Mr. O'Kelly staked 500gs. to 400gs.: 7 to 4 on Rockingham. On Wednesday, he won the jockey club purse, for four-year olds, 8st. each, R. C. beating Mr. Dawson's Roscius, the Duke of Northumberland's Denmark, Mr. Hale's Camel, Lord Grosvenor's Carlo Khan, and Mr. Panton's Pindar:—2 to 1 on Rockingham, and 7 to 2 against Roscius. On Saturday, he beat his royal highness the Prince of Wales's Hardwicke, 8st. 2lb. each, B. C. 300gs.:—5 and 6 to 4 on Rockingham, who was afterwards sold to his royal highness the Prince of Wales, for 2000gs. At Newmarket, May 11, at 8st. 7lb. he beat Mr. Dowson's Clayhall, 8st. 2lb. B. C. 500gs.:—5 to 2 on Rockingham. In the second October meeting, he was beat (for the first time), by Mr. O'Kelly's Soldier, 8st. 7lb. each, B. C. 500gs.—7 to 4 and 2 to 1 on Rockingham.

At Newmarket second spring meeting, 1786, Rockingham won 50l. for five-year olds, 8st. 6lb. and six, 8st. 12lb. D. C. beating Sir F. Standish's Delpini, 5 years old; Mr. Dowson's Clayhall, 5 years old; and Lord Clermont's George, 6 years old: 9 to 4 on Rockingham, and 5 to 1 against Delpini. At Ascot Heath, June 20, he walked over for a sweepstakes of 50gs. each, h. ft. for all ages, (6 subscribers,) four miles. In the same meeting, he walked over for a 50l. purse, for all ages. He was afterwards sold, at his royal highness the Prince of Wales's sale, for 800gs. to Mr. Bullock. At Lichfield, September 12, he won the king's purse, for five-year olds, 8st. 7lb. each, three-mile heats, beating Mr. Tetherington's Marplot, and Mr. Early's brown horse, by Tantrum. At Newmarket first October meeting, at 8st. 5lb. he won 70gs. for all ages, B. C. beating Mr. Wyndham's Guyler, 4 years old, 7st. 4lb. and Mr. Lade's brown filly, by Engineer, 4 years old, 7st. 4lb.—7 and 8 to 1 on Rockingham. In the second October meeting, at 8st. he won 60gs. for all ages, D. I. beating the Duke of Grafton's Oberon, 4 years old, 7st 4lb.;

Mr. O'Kelly's Soldier, aged, 8st. 6lb.; Mr. Wyndham's Ulysses, aged, 8st. 6lb. and Mr. Lade's Wilbraham, 6 years old, 8st. 4lb.—3 to 1 on Rockingham. Next day, at 8st 6lb. he won a subscription of 5gs. for all ages, B. C. (14 subscribers,) beating Mr. Wyndham's Drone, aged, 9st. 2lb.; Lord Grosvenor's Latona, aged, 9st. 2lb. and Mr. O'Kelly's Chaunter, 4 years old, 7st. 7lb.—7 to 2 on Rockingham.

At Newmarket Craven meeting, 1787, Rockingham won a sweepstakes of 50gs. each, h. ft. for all ages, four-year olds, 7st. 13lb.; five, 8st. 7lb.; and aged, 9st. D. C. (12 subscribers,) beating Sir F. Standish's Delpini, 5 years old; the Duke of St. Albans's Fox, 4 years old; Mr. Tetherington's Marplot, 5 years old; Mr. Wyndham's Drone, aged, ; Duke of Grafton's Oberon, 4 years old; and Mr. Lade's Pilot, 4 years old:—7 to 4 against Rockingham, 7 to 2 against Drone, 5 and 6 to 1 against Fox, and 7 to 1 against Delpini. On Monday, in the first spring meeting, at 8st. 3lb. he won 50l. for all ages, R. C. beating Lord Clermont's Collector, 5 years old, 8st. 3lb.; Mr. Wentworth's Cowslip, 4 years old, 7st. 9lb.; Mr. Wastell's Noodle, 5 years old, 8st. 3lb.; the Duke of Grafton's Patience, aged, 8st. 7lb. and the Duke of St. Albans's Challenger, 6 years old, 8st. 7lb.—5 to 1 on Rockingham. On Wednesday, he received 25gs. to withdraw for a 50l. purse, won by Lord Clermont's Woodcock. Next day, he won the king's purse for six-year olds, 12st. R. C. beating Mr. Dowson's Clayhall, 5 years old; Mr. Dawson's Roscius, 5 years old; and Mr. Hull's Quibbler, 6 years old:—5 to 1 on Rockingham. In the second spring meeting, at 8st. 12lb. he won the 140gs. subscription of 30gs. each, for all ages (nine subscribers), beating Mr. Wyndham's Skylark, 4 years old, 7st. 2lb.—40 to 1 on Rockingham. Next day, he won the jockey club purse, for horses, &c. 8st. 7lb. each, B. C. beating Mr. Wyndham's Drone, aged:—5 to 2 on Rockingham. At Guildford, May 29, he won the king's purse, for six-year olds, 12st. each, four-mile heats, beating Mr. Middleton's St. Valori:—4 to 1 on Rockingham. At Winchester, July 3, he won the king's purse, for six-year olds, 12st. each, four-mile heats, beating Mr. O'Kelly's Chaunter. At Nottingham, August 14, he won the king's purse for six-year olds, 12st. each, four-mile heats, beating Mr. Wentworth's Prince of Orange:—4 to 1 on Rockingham. At York August meeting, on Mon-

day, he won the king's purse, for six-year olds, 12st. four-mile heats, beating Mr. Hutchinson's Pitch, by Shark:—8 to 1 on Rockingham. On Thursday, he won one of the great subscription purses, for six-year olds, 8st. 10lb. and aged 9st. four miles, beating Mr. Wentworth's Verjuice, 5 years old; Mr. Garforth's Faith, aged; Sir W. Vavasour's Mark, 6 years old; Mr. Weatherill's Harlequin Junior, 6 years old; and Mr. Dawson's Roscius, 6 years old:—5 to 1 on Rockingham, and 7 to 4 on Verjuice, against Faith. On Saturday, at 9st. 7lb. he was beat by Mr. Hutchinson's Florizel, 3 years old, 5st. 7lb. the first heat, and was drawn; also distancing Mr. Wentworth's Cowslip, 5 years old, 8st. 6lb. for the Ladies' purse, four-mile heats:—From 10 to 20 to 1 on Rockingham. On Monday, in the Newmarket first October meeting, at 8st. 5lb. he won 50l. for all ages, R. C. beating Lord Grosvenor's Roundelay, 5 years old, 8st.; the Duke of Grafton's Oberon, 5 years old, 8st.; Mr. Wyndham's Ulysses, aged, 8st. 7lb. and Mr. Douglas's Macbeth, 4 years old, 7st. 5lb.—5 to 1 on Rockingham. On Wednesday, at 8st. 12lb. he won the 140gs. subscription, of 30gs. each (nine subscribers) beating Mr. Wyndham's Skylark, 4 years old, 7st. 7lb.—high odds on Rockingham. Next day, he won the king's purse, for six-year olds, 12st. R. C. beating Mr. Tetherington's Marplot:—6 to 1 on Rockingham. Same day, at 8st. 11lb. he won 70gs. for all ages, B.C. beating the Duke of St. Albans's Fox, 5 years old, 8st. 5lb.; Mr. Clark's Schoolboy, 5 years old, 8st. 5lb.; Sir F. Standish's Lepicq, 5 years old, 8st. 5lb. and Mr. Vernon's Flyator, 4 years old, 7st. 4lb.—4 to 1 on Rockingham. In the second October meeting, at 8st. 4lb. he won 60gs. for all ages, D. I. beating Mr. Vernon's Mufti, 4 years old, 7st. 4lb.—5 to 1 on Rockingham. Next day, at 8st. 13lb. he won a sweepstakes of 5gs. each, for all ages, B. C. beating Mr. O'Kelly's Scots, 4 years old, 7st. 7lb.—10 to 1 on Rockingham. The above were the only times of his starting that year. He was afterwards sold to Lord Barrymore, for 2500gs.

At Newmarket first spring meeting, 1788, Rockingham walked over for the

king's purse, for six-year olds, 12st. R. C. In the second spring meeting, he won the jockey club purse, for horses, &c. 8st. 7lb. each, B. C. beating Mr. Wentworth's Verjuice:—5 and 6 to 1 on Rockingham. In the same meeting, he (rode by his owner, 8st. 12lb.) beat Sir G. Armytage's Star-gazer, (rode by L. Jewison) 8st. 4lb. B. C. 300gs.—4 to 1 on Rockingham.

At Newmarket first spring meeting, 1786, Rockingham, 7st. 8lb. was beat by Mr. O'Kelly's Dungannon, 8st. B. C. 500gs.—2 to 1 on Dungannon. At Burford, in the same year, he was distanced in running against Mr. Tetherington's Marplot, and Mr. Dowson's Clayhall, occasioned by running on the wrong side of a post, when 6 and 7 to 1 on him. At Newmarket Craven meeting, 1788, he paid forfeit, viz. in a sweepstakes of 50gs. each, h. ft. D. C. won by Lord Grosvenor's Meteor. Also at Newmarket Craven meeting, 1789, in a subscription won by Sir Peter Teazle; which, with the above, were the whole of his performances.

Rockingham was afterwards a stallion, and covered at Bennington, near Stevenage, Herts, in 1790, 1791, 1792, 1793, and 1794, at 10gs. and 1g.; at Epsom, in 1795, at 8gs. and 5s.; at Clayhall, near Epsom, in 1796, and 1797 at 10gs. and a half; in 1798, and 1799, at 7gs. and 5s. He died in the autumn of 1799. Rockingham was the sire of the following winners, viz.: Mr. Pantan's Cuddy Moddy and Patriot, Mr. Hammond's Portland, Mr. Wilson's Bennington, Mr. O'Hara's Miss Pumpkin, Mr. Darling's Mother Redcap, Mr. Jones's Young Rockingham, Mr. Cosen's Arabella, Mr. Williams's Euphrasia, Mr. Stapleton's Fair Susannah, Mr. Harris's Brother Redcap, Mr. Bettison's Beelzebub, Mr. Heming's Kill Devil, Mr. Fletcher's Logie o' Buchan, Mr. Coventry's Sacripant, Mr. Spencer's Tunbridge, Mr. Joddrell's Macclesfield, Mr. Payne's Sally, &c. &c. He was also sire of the dam of Mr. Benson's Dimple, &c.; of the dam of John Pratt, Swiftsure, &c. Susannah was the dam of Tom Wealthy, Master Betty, Tumbler, Ponteland, Yoxford, &c. Lavinia was the dam of Sylvanus, Feramorz, &c. Mother Redcap was the dam of Mowbray, Pillowslip, &c.

ROEBUCK. The roebuck is the smallest of the deer kind known in our climate, and is now almost extinct amongst us, except in some parts of the Highlands of Scotland. It is generally about three feet long and two feet high. The horns are from eight to



THE DEER (Cervus)
The Female (Doe)



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nine inches long, upright, round, and divided into only three branches. The body is covered with long hair, well adapted to the rigour of its mountainous abode. The lower part of each hair is ash-colour ; near the ends is a narrow bar of black, and the points are yellow. The hairs on the face are black, tipped with ash-colour. The ears are long, the insides of a pale yellow, and covered with long hair. The spaces bordering on the eyes and mouth are black. The chest, belly, and legs, and the inside of the thighs, are of a yellowish white ; the rump is of a pure white, and the tail very short. The make of this little animal is very elegant : and its swiftness equals its beauty. It differs from the fallow-deer in having round horns and not flatted like their's. It differs from the stag in its smaller size, and the proportionable paucity of its antlers ; and it differs from all of the goat kind, as it annually sheds its horns and obtains new ones, which none of that kind are ever seen to do.

As the stag frequents the thickest forests and the sides of the highest mountains, the roebuck, with humbler ambition, courts the shady thicket and the rising slope. Although less in size, and far inferior in strength, to the stag, it is yet more beautiful, more active, and even more courageous. Its hair is always smooth, clean, and glossy ; and it frequents only the driest places and of the purest air. Though but a very little animal, as we have already observed, yet, when its young is attacked, it faces even the stag himself, and sometimes comes off victorious. All its motions are elegant and easy ; it bounds without effort, and continues the course with but little fatigue. It is also possessed of more cunning in avoiding the hunter, is more difficult to pursue, and, although its scent is much stronger than that of the stag, it is more frequently found to make a good retreat. It is not with the roebuck as with the stag, who never offers to use art until his strength is beginning to decline ; this more cunning animal, when it finds that its first efforts to escape are without success, returns upon its former track, again goes forward and again returns, until by its various windings, it has entirely confounded the scent, and joined the last emanations to those of its former course. It then, by a bound, goes to one side, lies flat upon its belly, and permits the hounds to pass by very near, without offering to stir.—In this we see much the same sort of manœuvring as that adopted by the hare.—In the only part of Great Britain, however, where these animals are found (the Highlands of Scotland) they are seldom hunted by hounds, but occasionally shot ; and as they are very shy creatures, so the approach to them is rendered difficult.

But the roebuck differs not only from the stag in superior cunning, but also in its natural appetites, its inclinations, and its whole habits of living. Instead of herding together, these animals live in separate families—the sire, the dam, and the young ones, associate together, and never admit a stranger into their little community. All others of the deer kind are inconstant in their affection ; but the roebuck never leaves its mate ; and as the male and female conceive so strong an attachment for each other, they never afterwards separate. Their rutting season continues but fifteen days, from the latter end

ROEBUCK

of October to the middle of November. They are not, at that time, like the stag, overloaded with fat ; they have not that strong odour which is perceived in all others of the deer kind ; they have none of those furious excesses ; nothing, in short, that alters their state : they only drive away their fawns upon these occasions, the buck forcing them to retire, in order to make room for a succeeding progeny ; however, when the rutting season is over, the fawns return to their dams, and continue with them some time longer ; after which, they quit them entirely, in order to commence an independent family of their own. The female goes with young but five months and a half, which alone serves to distinguish this animal from all others of the deer kind, that continue pregnant more than eight. In this respect, she rather approaches more nearly to the goat kind ; from which, however, the race is separated by the male annually casting its horns.

When the female is ready to bring forth, she seeks a retreat in the thickest parts of the woods, being not less apprehensive of the buck, from whom she then separates, than of the wolf, the wild cat, and almost every ravenous animal of the forest. She generally produces two at a time, and three but very rarely. In about ten or twelve days these are able to follow their dam, except in cases of warm pursuit, when their strength is not equal to the fatigue. Upon such occasions, the tenderness of the dam is very extraordinary ; leaving them in the deepest thickets she offers herself to the danger, flies before the hounds, and does all in her power to lead them from the retreat where she has lodged her little ones. Such animals as are nearly upon her own level, she boldly encounters ; attacks the stag, the wild cat, and even the wolf ; and, while she has life, continues her efforts to protect her young. Yet all her endeavours are often vain ; about the month of May, which is her fawning time, there is a greater destruction among these animals than at any other season of the year. Numbers of the fawns are taken alive by the peasants ; numbers are found out and worried by dogs, and still more by the wolf, which has always been their most inveterate enemy.

They were once common in England, and the old sportsmen gave names to the different kinds and ages, as to the stag :—thus they called it the second year a *gyrle*, and the third a *hemuse*.

The fawns continue to follow the dam eight or nine months in all ; and upon separating, their horns begin to appear simple and without antlers, the first year, as those of the stag kind. These they shed at the latter end of autumn, and renew during the winter ; differing in this from the stag, who sheds his horns in spring and renews them in summer. When the roebuck's head is completely furnished, it rubs its horns against trees in the manner of the stag, and thus strips them of the rough skin and the blood vessels, which no longer contribute to their nourishment and growth. When these fall and new ones begin to appear, the roebuck does not retire, as the stag, to the covert of the wood, but continues its usual haunts, only keeping down its head to avoid striking its horns against the branches of trees, the

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pain of which it seems to feel with exquisite sensibility. The stag, who sheds his horns in summer, is obliged to seek a retreat from the flies, which at that time greatly incommode him ; but the roebuck, who sheds them in winter, is under no such necessity ; and consequently does not separate from its little family, but keeps with the female all the year round.

As the growth of the roebuck, and its arrival at maturity, are more speedy than those of the stag, so its life is proportionably shorter. It seldom is found to extend above twelve or fifteen years ; and, if kept tame, it does not live above six or seven. It is an animal of a very delicate constitution, requiring variety of food, air, and exercise. It must be paired with a female, and kept in a park of at least one hundred acres. They may be easily subdued, but never thoroughly tamed. No arts can teach them to be familiar with the feeder, much less attached to him. They still preserve a part of their natural wildness, and are subject to terrors without a cause. They sometimes, in attempting to escape, strike themselves with such force against the walls of their inclosure, that they break their limbs and become utterly disabled. Whatever care is taken to tame them, they are never entirely to be relied on, as they have capricious fits of fierceness, and sometimes strike at those they dislike with a degree of force that is dangerous.

The cry of the roebuck is neither so loud nor so frequent as that of the stag. The young ones have a particular manner of calling to their dam, which the hunters easily imitate, and often thus allure the female to her destruction. Upon some occasions also they become in a manner intoxicated with their food, which, during the spring, is said to ferment in their stomachs, and they are then very easily taken. In summer they keep close under covert of the forest, and seldom venture out, except in violent heats, to drink at some river or fountain. In general, however, they are contented to quench their thirst with the dew that falls upon the grass and the leaves of trees, and seldom risk their safety to satisfy their appetite. They delight chiefly in hilly grounds, preferring the tender branches and buds of trees to corn or other vegetables ; and it is universally allowed that the flesh of those between one and two years old is the greatest delicacy that is known.

In America this animal is much more common than in Europe : with us there are but two known varieties ; the red, which is the larger sort ; and the brown, with a spot behind, which is less. But on the New Continent, the breed is extremely numerous, and the varieties in equal proportion. In Louisiana, where they are extremely common, they are much larger than in Europe, and the inhabitants live, in a great measure, upon their flesh, which tastes like mutton, when well fatted. They are found also in Brazil, where they have the name *cugacu apara*, only differing from our's in some slight deviations in the horns. This animal is also said to be common in China.

The roebuck, as we have already observed, was formerly an inhabitant of England, and not unfrequently seen on the wastes near

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Hexham, in Northumberland : as the breed became gradually more scarce, it was sought for with additional eagerness, and after enduring the united attacks of the dog and the gun for a few seasons, it at length dwindled into one solitary animal, which, nearly a century ago, was destroyed by Mr. Whitfield, of Whitfield, in that county.

Bewick mentions a roebuck, which, after being hunted out of Scotland through Cumberland, and various parts of the north of England, at length took refuge in the woody recesses upon the banks of the Tyne, between Prudhoe Castle and Wylam. It was repeatedly seen and hunted ; it frequently swam the river, and, either by speed or artifice, eluded all its pursuers. It happened that, during the rigour of a severe winter, being pursued, it crossed the river upon the ice with some difficulty ; and being much strained by its violent exertions, was taken alive. It was kept for some weeks in the house, and was then again turned out ; but all its cunning and activity were gone ; it seemed to have forgotten the places of its former retreat ; and, after running for some time, it lay down in the midst of a brook, where it was killed by the dogs.

The late Colonel Thornton, in his *Sporting Tour in the Highlands of Scotland*, mentions the roebuck :—"When he was in the neighbourhood of Moy, he observes—"I now adjusted my bullet gun, by which time the company came down stairs ; and at twelve I went out, intending to try for roebuck, which were said to be more plentiful and better preserved on this estate than in any part of Scotland.

I confess my patience had been so much tried before, that, though I proceeded, I thought my prospect of success very small ; but I took all imaginable pains, and saw one or a brace ; yet they were so deep in cover and sprang so quick, that my eye could scarcely follow them. Determined to go after black game, but still desirous of succeeding, took one cast more, and got the glimpse of another, at which I shot, and seeing one bound from the place, feared he was only slightly wounded, for I was certain I had not missed him. Reloaded, intending to follow him ; but, coming up to the rocky, bushy ground he was on, found him dead, being shot through the heart, and ordered the Highlander, who was with me, to take him home, after I had thoroughly examined him.

The roebuck (continues the Colonel) is the most timid and innocent of all animals, and about the size of a common two-years-old fallow-deer. It differs from them a little in colour and also in shape, but more particularly in the character and colour of the head and muzzle ; the former is very small, and the latter is barred with white. They are always lean, and the only fat found upon them is a small piece on the end of the rump."

The roebuck is still to be found in various parts of the Highlands of Scotland, from Ross-shire to the lower end of Loch Lomond, particularly in the neighbourhood of this lake on the property of the Duke of Montrose, and that of Sir James Colquhoun ; but they are more plentiful in some of the islands on the western coast of Scotland. Of late years, they have increased, but there are not any

in the remote Highlands ; for instance, in Sutherlandshire or Caithness.

ROE-BUCK HUNTING. I was uncommonly well mounted on an English mare, whose dam was said to have been by a very fine horse, which I discovered was a son of King Herod : but she was rather too warm in her temper, which does not answer amongst trees. The hounds consisted of only two couple, and those very indifferent ones. I lamented that mine were not with me, but they were gone to Monsieur de Beaumont's.

After trying for a considerable time, we at length found ; and the hounds having a good scent, ran tolerably for near two hours, during which time I only got one view of the game : however, he soon began to run shorter in rings and lay down ; and, as the sun got up, the dew went off ; and the scent, of course, became weaker. I then dismounted, and took my stand under an oak, intending to have shot at the roe-buck with the air gun which had succeeded so well with the wild boar ; but, before I could pull the trigger, he was in thick covert.

After a few rings and cold hunting, he came within twenty yards, when I discharged my piece, and was convinced, both by the springing and by the sound of the ball, that I had hit him. I gave several view-halloos, but the company either could not hear, or did not understand me ; though had I shot with powder, they must have been apprised by the report.

In about twenty minutes a hound came on the scent, but gave tongue faintly. I caught him by the ear, and he spoke most feelingly : this brought up the others, and with them the huntsman, whom I told of what had happened. He could not, at first, believe that I had wounded the roe-buck ; but I assured him of the fact, and desired him to let me go to the next avenue, and there lay on the hounds. He did so, and the dogs evidently enjoyed the scent better. This I thought a favourable omen, as it probably resulted from

the dropping of the blood on the cover. They were bringing the game across the avenue, directly to me, where I should have another shot ; but I imagine that he had either seen or winded me, as the scent turned to the right, about two hundred yards off. I saw him cross, however, and his shoulder appeared broke, as he could scarcely get over a gutter.

After I had hallooed, and the huntsmen had sounded their horns, the hounds began to run very briskly, and at last there was a dead silence. I concluded the buck was killed ; but in this I was mistaken, for he was at bay, and sometimes attempted to scramble off ; but, perceiving he could not go far, I rode before him, and sent a ball between his eyes.

The rest of the company soon came up, and were highly delighted ; but the keepers could not comprehend the nature of an air-gun, though they carefully examined the piece, and the effect of the ball. It must, however, in this instance, have shot very weak, or the first shot must have gone through the deer's head ; but it had broken the shoulder, and, being turned by a bone, had come out through the skin of the neck. This was deemed very extraordinary ; but I once shot a deer with the same gun, at Thornville Royal, which was in the act of leaping a fence : the ball went in at the shoulder, exactly opposite the heart, but it turned, went along the upper part of the belly, between the skin and the intestines, and came out at the hock.

The day was now intensely hot, and the flies, which surrounded us in myriads, would soon have saved the cook the trouble of roasting the game, had it not been carried home. However, being properly placed on a tray slung for the purpose, and covered with branches, it was conveyed to the castle with great parade, the horns playing all the way.—*Thorn-ton's Tour in France.*

ROOK. The rook is about the size of the carrion crow, but its plumage is more glossy. It also differs in having its nostrils, and the root of the bill, naked ; in the crow these are covered with bristly hair. This arises from the rook's thrusting its bill continually into the earth in search of worms and other food.

Besides insects, the rooks feed on different kinds of grain, thus causing some inconvenience to the farmer ; but this seems greatly

repaid by the good they do to him, in extirpating maggots of some of the most destructive of the beetle tribe.—In Suffolk, and in some parts of Norfolk, the farmers find it to their interest to encourage the breed of rooks, as the only means of freeing their grounds from the grub which produces the cock-chaffer, which in this state destroys the roots of corn and grass to such a degree, “ that (says Mr. Stillingfleet, one of the most accurate observers of nature whom this country has ever produced) I have myself seen a piece of pasture land where you might turn up the turf with your foot.” An intelligent farmer in Berkshire informed this gentleman, that one year, while his men were hoeing a field of turnips, a great number of rooks alighted in a part of it where they were not at work. The consequence was a remarkably fine crop in this part, while in the remainder of the field there was scarcely any turnips that year.

These birds are gregarious, being sometimes seen in flocks so great as to darken the air in their flight. They build their nests on high trees, close to each other ; generally selecting a large clump of the tallest trees for this purpose. When once settled, they every year frequent the same place. Rooks are, however, but bad neighbours to each other ; for they are continually fighting and pulling to pieces each other's nests. These proceedings seem unfavourable to their living in such close community ; and yet, if a pair offers to build on a separate tree, the nest is plundered and demolished at once. Some unhappy couples are not permitted to finish any nest till the rest have all completed their buildings ; for as soon as they get a few sticks together, a party comes and demolishes the whole. It generally happens that one of the pair is stationed to keep guard, while the other goes abroad for materials.—From their conduct in these circumstances our cant-word *rooking*, for cheating, originated.

As soon as the rooks have finished their nests, and before they lay, the cocks begin to feed the hens ; who receive their bounty with a fondling tremulous voice, and fluttering wings, and all the little blandishments that are expressed by the young while in a helpless state. This gallant deportment of the males is continued through the whole season of incubation.

New-comers are often severely beaten by the old inhabitants (who are not fond of intrusions from other societies), and even frequently driven quite away. Of this an instance occurred near Newcastle, in the year 1783. A pair of rooks, after an unsuccessful attempt to establish themselves in a rookery at no great distance from the Exchange, were compelled to abandon the attempt, and take refuge on the spire of that building ; and, although continually interrupted by other rooks, they built their nest on the top of the vane, and reared their young, undisturbed by the noise of the populace below them :—the nest and its inhabitants were of course turned about by every change of wind. They returned and built their nest every year on the same place, till the year 1793, soon after which the spire was taken down. A small copperplate was engraved, of the size of a watch-paper, with a representation of the top of the spire and nest ; and so much pleased were the inhabitants and other persons with it, that as

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many copies were sold as produced to the engraver the sum of ten pounds.

A remarkable circumstance respecting these birds occurred a few years ago at Dallam Tower, in Westmoreland, the seat of Daniel Wilson, Esq.—There were two groves adjoining to the park; one of which had for many years been the resort of a number of herons, that regularly every year built and bred there. In the other was a very large rookery. For a long time the two tribes lived peaceably together. At length, in the spring of 1775, the trees of the heronry were cut down, and the young brood perished by the fall of the timber. The parent birds, not willing to be driven from the place, endeavoured to effect a settlement in the rookery. The rooks made an obstinate resistance; but, after a desperate contest, in the course of which many of the rooks and some of the herons lost their lives, the latter at length succeeded in obtaining possession of some of the trees, and that very spring built their nests afresh. The next season a similar conflict took place; which, like the former, was terminated by the victory of the herons. Since this time, peace seems to have been agreed upon between them: the rooks have relinquished part of the grove to the herons, to which part alone they confine themselves; and the two communities appear to live together in as much harmony as before the dispute.

The following anecdote of this sagacious community is related by Dr. Percivall, in his *Dissertations*:—"A large colony of rooks had subsisted many years in a grove on the banks of the river Irwell, near Manchester. One serene evening, I placed myself within the view of it, and marked with attention the various labours, pastimes, and evolutions, of this crowded society. The idle members amused themselves with chasing each other through endless mazes; and, in their flight, they made the air resound with an infinitude of discordant noises. In the midst of these playful exertions, it unfortunately happened that one rook, by a sudden turn, struck his beak against the wing of another. The sufferer instantly fell into the river. A general cry of distress ensued. The birds hovered, with every expression of anxiety, over their distressed companion. Animated by their sympathy, and, perhaps, by the language of counsel known to themselves, he sprang into the air, and, by one strong effort, reached the point of a rock which projected into the water. The joy became loud and universal; but, alas! it was soon changed into notes of lamentation; for the poor wounded bird, in attempting to fly towards his nest, dropped into the river, and was drowned, amidst the moans of his whole fraternity."

There seems to exist a wonderful antipathy between these birds and the raven: Mr. Markwick says, that in the year 1778, as soon as a raven had built her nest in a tree adjoining to a very numerous rookery, all the rooks immediately forsook the spot, and have not returned to build there since. At the Bishop of Chichester's rookery, at Broomham, near Hastings, upon a raven's building her nest in one of the trees, all the rooks forsook the spot; they, however returned to their haunts in the autumn, and built their nests there the suc-

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ceeding year. It is no very difficult task to account for this antipathy. The raven will scarcely suffer any bird whatever to come within a quarter of a mile of its nest, being very fierce in defending it. It besides takes the young rooks from their nests, to feed its own young. This Mr. Lambert was an eye-witness to, at Mr. Seymer's, at Harford, in Dorsetshire; for there was no peace in the rookery, night nor day, till one of the old ravens was killed, and the rest were destroyed.

They begin to build in March; and, after the breeding season is over, forsake their nesting trees, and for some time roost elsewhere; but they have always been observed to return in August. In October, they repair their nests.

When the first brood of rooks are sufficiently fledged, they all leave their nest-trees in the day time, and resort to some distant place in search of food; but return regularly every evening, in vast flights, to their nest-trees; where, after flying round several times with much noise and clamour till they are all assembled together, they take up their abode for the night.

Mr. White, in his *Natural History of Selborne*, speaking of the evening exercises of rooks in the autumn, remarks, that just before dusk, they return in long strings from the foraging of the day, and rendezvous by thousands over Selborne Down, where they wheel round, and dive in a playful manner in the air, exerting their voices; which being softened by the distance, become a pleasing murmur, not unlike the cry of a pack of hounds in deep-echoing woods. When this ceremony is over, with the last gleam of light, they retire to the deep beech woods of Tisted and Kepley. We remember (says Mr. White) a little girl, who as she was going to bed used to remark, on such an occurrence, in the true spirit of physico-theology, that the rooks were saying their prayers; and yet this child was much too young to be aware that the scriptures have said of the Deity—that “he feedeth the ravens who call upon him.”

In the parts of Hampshire adjacent to the New Forest, after the rook has reared his progeny, and has carried off such of them as have escaped the arts of men and boys, he retires every evening at a late hour, during the autumn and winter months, to the closest coverts of the forest, having spent the day in the open fields and inclosures in quest of food. His late retreat to the forest is characteristic of the near approach of night.

Retiring from the downs, where all day long
They pick their scanty fare, a black'ning train
Of loitering rooks thick urge their weary flight,
And seek the shelter of the grove.—

But, although the forest may be called his winter habitation, he generally every day visits his nursery; preserving the idea of a family, which he begins to make provision for very early in the spring.

Among all the sounds of animal nature, few are more pleasing than the cawing of rooks. The rook has but two or three notes,

and when he attempts a *solo* we cannot praise his song; but when he performs in *concert*, which is his chief delight, these notes, although rough in themselves, being intermixed with those of the multitude, have, as it were, all their rough edges worn off, and become harmonious, especially when softened in the air, where the bird chiefly performs. We have this music in perfection when the whole colony is raised by the discharge of a gun.

Dr. Darwin has remarked, that a consciousness of danger from mankind is much more apparent in rooks than in most other birds. Any one who has in the least attended to them, will see that they evidently distinguish that the danger is greater when a man is armed with a gun than when he has no weapon in his hands. In the spring of the year, if a person happens to walk under a rookery with a gun in his hand, the inhabitants of the trees rise on their wings, and scream to the unfledged young to shrink into their nests from the sight of the enemy. The country people, observing this circumstance so uniformly to occur, assert that rooks can smell gunpowder.

In England these birds remain during the whole year; but both in France and Silesia they migrate. It is a singular circumstance that the island of Jersey should be entirely without rooks; particularly when we know that they frequently fly over from our country into France.

The young birds, when skinned and made into pies, are much esteemed by some persons.

ROOK SHOOTING. See SHOOTING.

ROUSE. A term in stag hunting: when an out-lying deer is found by the hounds in cover, he is said to be *roused*. When a deer is carted and carried to any particular spot for sport, and there liberated, he is then said to be *turned out*.

ROWEL. The small circular star, with sharp points, moving upon a pivot at the heel of the spur, is so called.

ROWEL IN A HORSE. "Rowels for horses (says Mr. Clark of Edinburgh) answer the same purpose as issues in the human body. The method of introducing them is by making an incision through the skin, about three-eighths of an inch long, and then separating the skin from the flesh with the finger, or with a blunt horn, all round the orifice, as far as the finger will easily reach, then introducing a piece of leather, very thin, shaped round, about the size of a crown-piece, having a large round hole in the middle of it. Previous to introducing the leather, it should be covered with lint or tow, and dipped in some digestive ointment; a pledget of tow, dipped in the same ointment, should likewise be put in the orifice, in order to keep out the external air. The parts around it soon swell, and this is followed with a plentiful discharge, from the orifice,

of yellowish serum or lymph; and in two or three days at most, there discharges a thick gross white matter: the rowel is then said to suppurate.

These artificial vents act by revulsion or derivation; and hence they become of great use in many cases, as they empty the surrounding vessels by a regular slow discharge of their contents, and are even of great service when there is a redundancy or fullness of humours in general, which may require a gradual discharge, in preference to greater evacuations by purging medicines, &c. Rowels should be placed (especially in some particular cases) as near the affected part as possible; and, at all times, they ought to have a depending orifice, in order to admit of a free discharge of the matter that may be contained in them.

The parts in which they may be most conveniently inserted, and where they are found to answer the purpose best, are the belly, inside of the thighs, the breast, and outside of the shoulders and hips. They are sometimes, but very injudiciously, put in between the jaw-bones under the root of the tongue, where they never come to a proper suppuration, on account of the constant motion of the parts in eating, &c. neither do they answer any good purpose

from being placed in that situation. In some disorders it is found necessary to put in several of them at once, in order to make a sudden determination from the parts affected; but this should be regulated by the horse's age and strength, and by the circumstances that require their use."

Mr. Clark here adverts to the possibility of their misapplication.—"But (says he) though rowels are found very beneficial in some cases, yet, like a number of other operations common to horses, they frequently, instead of suppurating, become gangrenous. Hence, the cure proves worse than the disease they were intended to remove. Thus, in violent fevers, where they are frequently very injudiciously applied, they never suppurate properly. Whether this proceeds from the quickness of the pulse, together with the violent rapidity with which the fluids in general are then carried through the vessels, or from the violent agitation in which the whole system is thrown, it is difficult to determine; but experience confirms the fact. In such cases, the surrounding parts, where the rowel is placed, seldom or never swell (as in the ordinary course, when they suppurate properly), but appear dry, or much in the same state as when they were first put in; there is little or no discharge from the orifice, and the little that does come is thin, ichorous, and bloody. In such cases, they ought to be taken out immediately, and the parts well fomented with a strong infusion of chamomile, or an emollient poultice applied, if it can be properly fixed, and frequently repeated. At intervals, the parts ought likewise to be bathed with ardent spirits, as that of wine, turpentine, &c. covering the parts from the external air; and, provided there be no fever at the time, two or three ounces of Peruvian bark may be given through the day, either

made into balls, or given in a liquid; and this course should be continued till the threatening symptoms are removed."

Gibson gives an instance of cancer being produced by a rowel placed near the glandular parts in a horse, and which proved fatal to the animal.

The practice of rowelling, however, Mr. Clark considers of great use "in carrying off rheums, or defluxions from the eyes; in extensive swellings of the glands, &c. about the throat and jaws, which threaten a suffocation; or when the head seems particularly affected, as in the vertigo or staggers, apoplexy, &c. in recent lameness; swellings of the legs and heels, attended with a discharge of thin ichorous matter, &c. in large and sudden swellings in any part of the body; or when extravasations of the fluids have taken place, from blows, bruises, &c. or when a horse has had a severe fall, &c. and in a variety of other cases," which he apprehends will occur to the judicious practitioner, without the necessity of further injunctions on the subject.

If we may be allowed to differ from so experienced a practitioner, we would venture to call in question the propriety of bathing, with stimulating liquids, the parts which swell without suppurating. To say nothing of its being inconsistent with the emollient treatment by fomentation and poultices, we apprehend the want of a kindly discharge to arise, in such cases, from the degree of inflammation in the part having advanced beyond the suppurative point. Else why the benefit which almost invariably results from withdrawing the rowel, and employing the common means of abating inflammation? We submit, therefore, to the veterinary fraternity, whether, at least, the application of spirit of turpentine, which is extremely pungent, to the skin of a horse, should not rather be dispensed with?

RUD OR FINSCALE is not a common fish; it is found in the Cherwell, near Oxford, and in Northamptonshire, in Lincolnshire, in some of the lakes in Yorkshire, and in the Trent, where it is believed to breed in the Fleets, which are large pieces of standing water, supposed to have been the ancient course of that river, from whence they escape in high floods into the Trent; they affect ponds and still waters, where they breed and grow uncommonly quick, but rarely exceed two pounds weight. They are doubtless a distinct species, notwithstanding Mr. Walton mentions them as being produced by the junction of the bream and roach.

The body of the rud is broader than the carp, more like that of the bream, but much thicker; the head is small, the palate and teeth

like the carp ; on the covers of the gills are spots of a blood colour ; the irides are yellow, varying in some almost to redness ; the nostrils large, and by some said to be double on each side ; the back is arched, sloping off suddenly at the two extremities ; the scales are very large, like the carp ; the side line is slightly incurvated : the back is of an olive, the sides and belly are of a gold colour, with certain red marks ; the ventral, anal fins, and the tail, (which is forked,) are generally of a deep red, and the dorsal fin is darker than the rest ; the usual length of this fish is from ten to sixteen inches. It lives on insects and grass, and is preyed upon by the voracious fish, and the anseres. In rivers, the rud's haunts are in deepish gentle streams and deep still water, where the bottom is a kind of slimy mud sand, or fine gravel, and also among weeds : in pools, chiefly in holes among the weeds. They are always in season, except at the time of spawning, which is in April, when the male fish have small white spots about their heads, and the scales of both sexes feel more rough ; they swim in shoals, casting their spawn upon and among the aquatic plants, to the number, according to the Elements of Natural History, of 91,000 ova. Their flesh is exceedingly wholesome, and holds a distinguished rank for its fine flavour ; but they are very scarce.

Mr. Pennant believes the Shallow of the Cam, which grows to the length of thirteen inches, and spawns in April, to be no other fish than the rud.

The angler will find the rud worth his attention ; the tackle must be strong, but fine, with a quill float, and a hook proportioned to the bait ; the same ground-bait is to be used as for carp and chub, fishing about the same depths as for the latter, except on the ground, for they feed naturally near the surface ; they will in this way take red-worms, gentles, wasp-maggots, cadis, and red paste. Some use ground-bait of boiled malt, and prefer a small red-worm to any other bait. In fishing among weeds, have neither float nor shot, and let the worm, or other bait, sink a little under water : at the top they are taken either with natural or artificial flies, by whipping with a long, and dibbling or bobbing with a short, line. In warm, bright weather, the rud will bite early and late ; when coolish, the fore and afternoons ; and in winter, the middle of the day ; when hooked, this fish struggles hard, and requires time in landing, and is so tenacious of life, as to retain it after being taken out of the water a considerable time.

RUFF or POPE is found in several of our streams ; the river Yare, in Norfolk, affords perhaps the greatest plenty : it is a gregarious fish, assembling in large shoals, and keeping in the deepest part of the water ; it somewhat resembles a perch, though the form is more slender, and the length rarely exceeds six inches, the teeth are very small and disposed in rows, it is marked on the jaws with a double course of half circles ; the upper part of the eye is of a dark brown, the lower part somewhat yellow, and the globe of it black ; the first rays of the dorsal fin (which is spotted with black) are like those of the perch, strong, sharp, and spiny, the others soft ; the

body is covered with compact scales, the back and sides are of a dirty green, the last as well as the belly inclining to yellow, but both spotted with and the tail marked with transverse bars of black; their principal spawning time is the beginning of April, but some are said to spawn again in October, and, in the Elements of Natural History, are said to deposit 75,000 ova.

To the young angler, the ruff yields good sport: they associate in great numbers, their haunts are in reclusive places, where the water is deep, and runs quietly with a loamy or muddy bottom, and also in still water; the tackle should be fine, the hook No. 7, and a quill float, the bait (a small well-scoured red-worm) must just run on the ground, and either throw in some clay balls with worms, as directed in perch fishing, or if the water be clear, use common mud balls to colour it; three rods may be easily managed, the baits touching the bottom; when there is a bite, strike directly, for they gorge so hastily, that the disgorging or a knife must frequently be used, to get out the hook; by thus angling for them, six or eight dozen are often caught at a standing. Either in spring or summer, with a brisk, warm wind, they will bite all day; and will sometimes in cold weather take the bait very freely. The ruff, for the delicacy and richness of its flavour, as well as for its being considered very nourishing, is more admired than the perch. They are to be dressed in the same manner.

RUFF AND REEVE. The ruff is about a foot in length, with a bill of about an inch. The face is covered with yellow pimples; and the back part of the head and neck are furnished with long feathers, standing out somewhat like the ruff worn by our ancestors; a few of these feathers stand up over each eye, and appear not unlike ears. The colours of the ruffs are in no two birds alike: in general, they are brownish, and barred with black; though some have been seen that were altogether white. The lower parts of the belly and the tail coverts are white. The tail is tolerably long, having the four middle feathers barred with black; the others are pale brown. The legs are of a dull yellow, and the claws black.—The female, which is called the reeve, is smaller than the male, of a brown colour, and destitute of the ruff on the neck.

The male bird does not acquire his ruff till the second season, being till that time in this respect like a female: as he is also from the end of June till the pairing season, when nature clothes him with the ruff, and the red pimples break out on his face; but after the time of incubation the long feathers fall off, and the carbuncles shrink in under the skin so as not to be discerned.

These are birds of passage; and arrive in the fens of Lincolnshire, in the Isle of Ely, and the East Riding of Yorkshire, in the spring, in great numbers. Mr. Pennant tells us, that in the course of a single morning there have been above six dozen caught in one net: and that a fowler has been known to catch between forty and fifty dozen in a season.

The males are much more numerous than the females, and they have many severe contentions for their mates. The male chooses a stand on some dry bank, near a splash of water, round which he runs

so often as to make a bare circular path : the moment a female comes in sight, all the males within a certain distance commence a general battle ; placing their bills to the ground, spreading their ruff, and using the same action as a cock : and this opportunity is seized by the fowlers, who, in the confusion, catch them, by means of nets, in great numbers.

An erroneous opinion prevails very generally, that the ruffs, when in confinement, must be fed in the dark, lest the admission of light should set them to fighting. The fact is, that every bird, even when kept in a room, takes its stand as it would in the open air ; and if another invades its circle, a battle ensues. A whole room full of them may be set into fierce contest by compelling them to shift their stations ; but, after the disturber has quitted the place, they have been observed to resume their circles, and become again pacific. In confinement, their quarrels originate in the circumstance of the pan containing their food not being sufficiently large to admit the whole party to feed without touching each other. When the food has been divided into several pans, the birds have continued perfectly quiet.

The reeves lay four eggs, in a tuft of grass, about the beginning of May ; and the young are hatched in about a month.

It is not known with certainty in what country these birds pass the winter.

RUNNING HORSES. See **RACE HORSE.**

RUNNING THRUSH, or FRUSH. See **THRUSH.**

RUPTURE. Gibson describes this complaint in horses in the following way : " When any part of the guts or caul (says he) makes its way through the muscles of the lower belly, it is called a rupture ; when any part of the guts falls into the scrotum, it is said to be a complete rupture ; when at the navel, it is called an umbilical rupture. I once saw a fine Spanish stallion with a complete rupture ; the swelling was so extremely large, that the gut extended the scrotum down to his hock. This circumstance rendered the cure in a great measure impracticable. It was the only one of the kind I ever saw, and, in fact, it is a case that must seldom happen, the position of a horse's body being such, as cannot so easily expose him to ruptures into the scrotum, as men are, whose posture is erect. I also have seen a gelding, where probably some part of the gut or peritoneum had made its way through the vaginal passage, into the membranous parts of the sheath on the right side ; for the omentum, or caul, seldom reaches so low in a horse, his continual horizontal motion throwing it, for the most part, forward in wrinkles. The swelling was about the size of a goose's

egg, a great part of which might be thrust back with the finger into the cavity of the lower belly, but immediately returned in the manner of a flatulent tumour ; and perhaps there might be some portion of air along with it. The cure was never attempted, because it was little or no hindrance to the horse in his business, the swelling being generally fuller when he stood still than when he worked.

But the most usual ruptures are more upwards, and proceed from strains in working, or from being staked, or gored by bullocks, violent kicks from other horses, very high leaps over gates and hedges ; all which things sometimes divide the muscles of the lower belly, and oftentimes without piercing or rending the skin, whereby a portion of the intestines, with a part of the peritoneum, and when the wound happens to be forward, part of the caul may also be lodged where these muscles are separated or divided, and so cause a swelling of a proportion and size equal to the rent made in the part. An instance of this kind I once saw, of a very fine Flanders mare, that had a rupture near her navel of a considerable size, which, however, did not prevent her working, but as it grew larger it became troublesome ; and a very eminent and able surgeon, imagining the substance to be fleshy, and of the nature of a wen,

persuaded me to have some trial made of it by excision, for it felt solid as she stood on her legs, which might be owing to part of the caul (which is always rolled forwards in working horses), and along with this, an adventitious growth of flesh, caused by the rending of the muscles and membranes, for when she was thrown upon her back, part of the substance went inwards, and plainly discovered her malady to be a rupture.

I have known some few instances of umbilical ruptures, that have been caused by rowels in the belly, when they have been cut too deep, and perhaps were afterwards neglected. And I knew a horse with a rupture of this kind, perform a journey of several hundred miles, without any great inconvenience, only, that he always went sluggish at his first setting out, but more cheerfully as he emptied himself. Nevertheless, this is a very great defect, and few horses with such infirmities can be long useful. I have seen other ruptures, and these are, indeed, the most usual, that push out on the sides of the lower belly, where the tunica vaginalis passes through the rings of the muscles, with the spermatic vessels, into the scrotum; and in geldings they seldom reach further than the first ring, which is a little way above the groin; but when they happen on the sides of the flanks, they are then, for the most part, owing to such accidents as have been above mentioned. They generally bunch out about the size of a man's fist, and are fullest when the horse stands still in the stable, especially after feeding and watering, and in broken-winded horses they rise and fall with the agitation of the flanks; they are soft, and yield to the pressure of the hand, and in most of them one may feel the vacuity through which the viscera make their way immediately to the skin. But, as there is no absolute cure to be expected in such cases, the safest way is to feed moderately, and in small quantities, with small draughts of water, and to use such horses gently. In all beginning ruptures, a fomentation made of oak bark, boiled in equal parts of the sharpest vinegar, and smith's forge water, have been used by farriers for a general application; for, in horses, bandagés and trusses of any kind are, for the most part, impracticable."

This experienced writer concludes his subject with an instance of a very fine gelding, that was killed by a rupture, and in a manner somewhat extraordinary.— "This horse (says he) belonged to a per-

son of distinction, and was abroad with our army in Germany and the Netherlands. He received a hurt while he stood at the piquet along with some other horses; yet went through his business very well for the space of two years, notwithstanding that accident; but, after a hard day's hunting, was taken with the gripes, of which he died. I was sent for to examine his abdomen, where there was something that surprised all that saw him opened. The ring through which the tunica vaginalis passes, appears plainly in a horse to be formed of the tendinous part of the muscles, has the strength and firmness of a ligament, and resembles a hem or large oilet-hole, such as we see in the sails of a ship. One half of this ring was torn off from the flesh, and lay across the orifice, which tied up a duplicature of the colon so tight, that nothing could pass through it; and this was evidently the cause of his sudden death.

I have briefly related this case (adds he) in order that those who are employed about horses, may be so far informed in such things, as to examine them carefully when the gripes, or any other sudden disorder, seizes them. For if the duplicature of the gut had been forced back into the cavity of the lower belly, when he was first seized, his death might probably have been prevented; for this rupture seldom appeared larger than a man's fist."

RUSSIAN POINTER. A few years back, a rough-coated dog, of the water spaniel breed, was introduced to the notice of the sportsmen of this country, under the denomination of the *Russian pointer*. Whether he be originally Russian, is very doubtful; but he is evidently the ugliest strain of the water spaniel species; and, like all dogs of this kind, is remarkable for penetrating thickets and bramble bushes, runs very awkwardly, his nose close to the ground (if not muzzle-pegged) and frequently springs his game. He may be taught to *set*, and so may a terrier, or any dog that will run and hunt, and even pigs, if we are to believe the story of Sir Henry Mildmay's black sow; but to compare what is called the Russian pointer with the pointer, properly so called, or the setter, would be outrageous; nevertheless, we are not prepared to say, that out of a hundred of these animals, one, tolerable, could not be found: but we should think it madness to recommend the Russian pointer to sportsmen, *unless for the purpose of pursuing the coot or the water-hen.*

Chance, in all probability, first introduced the Russian pointer to the notice of some fanciful sportsmen : to see a dog of this description set steadily, would appear strange ; and, from this very circumstance, the animal might obtain credit for other qualities which he did not possess. However, the use of the Russian pointer was very limited, and attended, for the most part, with unqualified dissatisfaction.

RUT. Deer, both red and fallow, are said to go to rut at the season of copulation.

RUTTING TIME. The rutting season commences the latter end of August, and continues to the first and second week in October ; during which, both the stag and the buck assume a degree of courage, in approaching man, that they never display at any other period of the year. At this season, their necks swell ; they range from one place to another incessantly, in seeming search of some object to attack ; the voice of the stag is loud and alarming to those who have not been accustomed

to hear it. When opposed, they are so exceedingly strong and ferocious, that no common force can stand against them : they attack an individual in rutting time, with a certainty of success. Some years ago, the lock-smith, who inspected the gate locks of Windsor Great Park, weekly, was pursued by a stag, and, when within a few yards of him, most luckily escaped by climbing a small tree, where he was kept in jeopardy nearly twenty-four hours, till the next day the stag retreated upon the accidental approach of some of the keepers. Also, about the same period, a girl, fourteen years of age, passing through Hackwood Park, near Basingstoke, in Hampshire (and having on a red cloak) was attacked by one of the oldest stags in the park, who literally perforated her body in almost every part, and extended his fury to her apparel :—the melancholy spot was covered with rags, and the body of the unfortunate girl was so maimed and disfigured, that it scarcely retained the appearance of a human body.

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SACCADE. In the manege, a jerk, more or less violent, given by the horseman to the horse, in pulling or twitching the reins of the bridle, all on a sudden, and with one pull ; to correct a horse that lies heavy upon the hand, or obstinately arms himself. This is used to make the horse carry well : though it ought to be used discreetly, and but seldom.

SADDLE. The saddles now in use, when they first came up, were distinguished by the name of hunting saddles, and the old fashioned ones, with one deep skirt, were called road saddles. The inconveniences of these saddles have put them out of use, so that you rarely see one now, but with old post harness. Those who have never rode on these saddles, may not be aware of their inconveniences, and those who are fond of singularity may be induced to order one on the old construction. The absurdest whims are followed, if set on foot by those who lead fashions ; witness, a short time since, every horse must have a collar and martingal, let his head be placed by nature in the most desirable manner. At another time, every horse must have a breast-plate, though his belly was like a mare with foal ; others with cruppers, though the horse was tucked up, and run through his girths.

Now the inconveniences of the old single-flap saddles are, that if the flap is short, your knee is not protected from the girths and straps ; if the flap is made deeper, it unpleasantly interferes with the top of the boot ; if you have the flap still longer, the stirrup-leather will cause it to rub and chafe the leg. If you have a surcingle to prevent it, the stirrup leather is confined and unpleasant ; and, should your foot quit the stirrup, you cannot, without stopping your horse, conveniently get your stirrup again. These inconveniences have done away their use for the present.

The modern saddle does away all these inconveniences, by the stirrup-leather being outside the deep flap ; and though the flap be cut ever so deep, it needs no surcingle to keep down, provided the leather is of that substance it ought to be ; but if it is a thin flabby piece of leather, it will rise with your knees, and be unsafe to ride a horse over leaps, &c. The short flap covers the aperture where the stirrup leather comes through, and when properly made, you feel no inconvenience from it ; but I have rode on saddles where the edges of this flap have chafed me—I believe it might be occasioned by the flaps being too short.

I have seen a single flap-saddle, with a

small neat hole cut for the stirrup leather, to come on the outside. I see no other objection to this than the eye-sore, which would be thought nothing of, if general, and the preclusion of altering your stirrup without dismounting. Now, gentlemen have done away this convenience in the modern saddle, by having the ends of the stirrup leather put under the deep flap, and when there is occasion to have them altered, it is attended with some difficulty, and the flaps are liable to be, and are frequently torn when they become hard and dry with doing it. But I prefer the end of the stirrup leather on the outside, that I may alter my stirrup as I like, in a full gallop if I please.

It is certain, were any thing constructed and brought to the highest perfection, the most ridiculous absurdities would be substituted for fashion's sake. But a few years ago, the pommel of the saddle was made to a point, as small as the end of my finger, which might mortally injure a person were he to have the misfortune to be thrown upon it. If a regimental saddle had a high cantle, to prevent the forage and necessities a soldier carries on his march, riding on the saddle, what necessity can there be for the gentleman to adopt the same, who will not carry his great coat behind him.

Let us consider the use and utility of the saddle, and we find it intended to enable the horse to carry his burthen with ease and comfort to himself; this is the first consideration—and the next is, to make the seat pleasant, secure, and comfortable to the rider; other considerations are convenience and fashion.

But in what manner does the saddle relieve the horse?

First, he is relieved from the friction of the thighs. The action of the horse always gives the body motion, and the saddle prevents the horse receiving the friction he would endure if bare-backed, or only a cloth on.

Next, the weight of the rider is distributed and conveyed to parts more capable of sustaining the weight. For instance, when you ride without a saddle, the horse sustains your weight in the middle, or most weak part of the back; but when you ride on a saddle, your weight is distributed, for the saddle has bearings before and behind, but none in the centre, or weak part of the back.

From hence we may infer, that the saddle should be proportioned to the size

of the horse; and the short saddles used for racing, are constructed more for lightness than ease. Not that I would have a saddle too long, as to reach from his withers to his rump; but that the bearings before are clear of any interference with the shoulder or plate-bone, and behind not to extend to the hips by four inches.

The fitting of the saddle greatly contributes to the ease of the horse, and this commonly is only partially considered; for when a strange saddle is put on a horse, if it is not likely to crush his withers before, and come down on the back-bone behind, it is judged sufficient. But if a horse has a weight to carry, or a long journey to perform, particular attention should be paid to the fitting of the saddle, for a horse may be rendered very uncomfortable, though the saddle neither presses on his withers or his chine.

For the saddle to fit well, the bearing should be equal on every part that is intended it should touch; and the closer it comes down, so that neither the weight of the rider, nor settling of the pannel, can bring it to injure the withers or chine, the better.

Examine, therefore, with your finger from the bearing of the side of the withers, to the point of the tree, if it appears to have equal pressure; and the same all round the hinder part of the saddle. If there is space for your finger between the pommel and the withers, and likewise between the chine bone and back part of the saddle, you may reasonably suppose it will not come down to injure the horse, unless the tree is weak, and spreads with the weight of the rider, or the pannel is newly stuffed.

On the other hand, if you perceive the points so narrow, that the saddle cannot come to its bearings till the girths or weight of the rider brings it down, the extra pressure at these points for a considerable time or distance, must occasion heat and inflammation. The same remark will stand good for the hind part of the saddle.

Again, should the saddle come down on its bearings, and the points stand so wide as not to touch, and the pommel stands high so as not to injure the withers, it is said this saddle will not hurt him. Agreed—it will not, to ride a small distance, or to exercise, or to give a horse a lesson, for on this principle the saddles for general use are made, to suit all horses;

the points of the tree are short, and sufficiently wide, the pommel cut high, so that a bearing is sure to take place, without crushing the withers. But these cannot be called saddles to fit. And when long journeys are taken in hot weather, with saddles that have such contracted bearing, expect to find inflammation and warbles.

A lady's saddle requires the most particular exactness in fitting, or the horse will be cruelly galled by it; this makes people attend much to it, though many err in their conception of the saddle fitting. A lady's saddle should be very deep in the points, and should sit close from the top of the bearing to the extreme ends of the points. The manner a lady rides will ever give the saddle a preponderance to the near side, at which time the saddle is sustained by the point on the near side, and the bearing on the off, which may be compared to a hook; the depth and closeness of the near point, preventing the bearing on the off side unhooking itself. The closer the pommel comes down to the withers, so as neither weight nor settlement can make it touch, the better; and a trifling easement may be given on the off side of the pommel, but not to extend to any part where the bearing should be, lest you loosen that bite or hold, which sustains the saddle.

If the tree does not fit in the manner described, you cannot stuff the pannel to insure its not injuring the horse; and where the tree fits, all superfluous stuffing in the pannel, under the idea of rendering it soft and pleasant to the horse, must be avoided, as the elasticity of the stuffing permits the saddle to get out of place. Thick-stuffed pannels are not always easy for the horse in gentlemen's saddles, for it is difficult to be certain of so much stuffing being regular; and those parts that happen to be the thickest, when they settle and become hard with the sweat, must be uneasy, and occasion warbles.

Respecting saddles keeping their place on the horse's back, there are two contrivances:—the crupper, to prevent it getting too forward; and the breast-plate, to prevent it getting back: but neither are wanted by gentlemen for road-riding, who keep their horses in condition, and have their saddles fitted to them. For hunting, some horses require a breast-plate; deep-chested horses climbing hills, their bodies tucked up by running, their saddles will get back, and require a breast-

plate, which should be of worsted for its elasticity.

The crupper is useful: in breaking we use it, because every horse should be accustomed to it, and because the saddles we use are not fitted to the horses we ride. Many horses when full of flesh and out of condition, cannot keep a saddle in its place without a crupper. But dry wholesome food, and sufficient exercise, with good grooming, soon alter the shape and condition, that a horse can carry the saddle without the crupper.

Ladies' saddles, when properly fitted, will not require cruppers more than gentlemen's, but the girths crossed from the hind part of the saddle to the front, will keep them more steady; or a strap from the hind part of the saddle to the fore girth on the off side, may prevent the saddle twisting to the near side, as it usually does.

Having considered what relates to the ease and comfort of the horse, the rider's accommodation comes next to be considered; for a saddle may fit a horse, yet be a most awkward, unpleasant seat for the horseman. Those who have rode on a variety of saddles, both of the old and modern make, are sensible of this. The modern saddles of our best makers, are hardly to be improved upon; I don't mean to attempt it, but shall leave it to the saddlers, whose more particular province it is, declaring I cannot suggest any ideas to assist them therein.

But, for the information of gentlemen, I shall develop the seat of a saddle, which will shew that the comfort, ease, and security of riding, depend much on the ingenuity and skill of the saddler. The upper part or seat of the saddle, is formed or shaped by the straining of what is called web. Web is first strained from the pommel to the cantle of the tree, and other web crossing those to the bars of the tree on each side, by the straining of these, the hollowness and propriety of the seat is formed. The propriety of the seat is, when the rider without his stirrups, or any effort of his own, naturally settles, and keeps his proper situation in the saddle; but when the seat is improperly shaped, he will be shifted (too forward mostly), and will have an insecure and unpleasant seat. Therefore, when the saddle is on the horse's back, if your cantle is ever so high, the lowest part of the seat should be rather behind the centre of the saddle, where the gravity of the body will settle, and permit the

thighs to keep their proper situation and position.

You will observe, the web sustains the weight of the rider, protecting him from the tree of the saddle, and to render his seat easy, it is first covered with flannel and stuffed with wool; the sides of the seat on each side are stuffed pretty full, to keep the upper part of the thigh clear from chafing, by the edges of the upper flap. The centre covering of the seat is usually hog-skin—some may be induced for their ease to have them covered with doe-skin, but I apprize such, that it is difficult to keep them decently clean; besides, if caught in the rain, they imbibe so much wet, they must be several days drying.

The seat of a lady's saddle, exclusive of the head, is differently formed from the gentleman's. A deep hollowness in the centre of the seat is unnecessary; the seat is stuffed on each side full, that the rider may be less liable to slide to the near side: and particular regard should be had that the saddle be proportioned to the size of the lady; for a tall lady, though ever so slim and light, must not have a short saddle, because she cannot keep herself from off the cantle.

The improvements in the ladies' saddle have, I think, exceeded those of the gentlemen's. If we look at the old-fashioned side-saddle, and the modern one, a great difference appears; but the improvement may not strike the person unacquainted with them. I shall endeavour to point them out.

The modern ladies' saddles, exclusive of the heads, are made high in the pommel; the intention of which is, to prevent the seat from shifting forward, on even ground, or small declivities, which it unavoidably will in riding down steep hills; and when the seat is thus forward, the knee loses its grasp, which is the lady's principal security. The head of the modern saddle, which is the part that receives the knee, is made high (from six to eight inches) which secures the knee from being displaced by any little unexpected roughness, that sometimes unavoidably happens. And lastly, the head is placed more upright, or over to the off side, which assists the lady in keeping her centre in the saddle, and not hanging to the near side. Beside which, the modern saddle has a flap on the near side before the saddle, which preserves the habit from the sweat of the horse, and the leg from the front of the saddle; the inside of this flap is sometimes lined with

flannel for the accommodation of the horse; and the outside with hog-skin, stuffed for the accommodation of the rider. The head, and every part of the ladies' saddle, should be stuffed, to render it as comfortable as possible, but no part should be covered with doe-skin, because, exclusive of the disadvantages I pointed out in the gentlemen's saddle, the ladies' habit will cling to this kind of leather, and ride up beyond a possibility of keeping it comfortably down.

For a lady's stirrup, the slippers now in use are pleasant and secure; the iron cannot gall the instep, nor the foot hang in it in case of accident, provided the iron is wide enough for the foot. My method is to have the stirrup fixed, and hang the leather over the off head of the saddle, the buckle under the head, by which method, I can alter a lady's stirrup without displacing her, or dismounting myself; and thus there can be no occasion for a double-flapped saddle, but all ladies' saddles must have surcingles to confine the flaps.

Other saddles are rarely used now except in riding-houses, which are called peak saddles, and demi-peaks. These saddles have a peak, or raised work, round the seat, shaped to the thighs; the seat is usually covered with stout doe-skin, soft-stuffed and quilted; the peak is continued beyond the tree, a little down the thighs, by leather, the elasticity of which, preserves the balance without galling the thigh.

The demi-peaks have only burs before, to keep the thighs from coming forward, but the full breasted peak has a raised work continued from side to side over the pommel or front of the seat. The peak and adherence of the soft-stuffed doe-skin seat, preserves a secure balance without stirrups, and the breast-work preventing your knees rising or coming forward, certainly gives an additional security to the seat, and therefore, these saddles are preferable for backing young horses, breaking in general, and riding the manège lessons very high. Stirrups are not always used with these saddles, and therefore they are looped to a brass knob fixed over the pommel for that purpose, or removed at pleasure. The skirts of these saddles are usually Russia leather, curiously stitched; in general they make the skirts too short, a fault that is easily remedied by giving orders accordingly. This I look upon to be the ancient warsaddle, and, I believe, is still used in

many parts abroad as a state-saddle, superbly decorated.

SADDLE-BACKED. A horse is so termed, when the rump bone rises so high behind, in conformity with the withers before, that a hollow (or rather a complete curve) is formed in the middle, as a natural receptacle for the saddle. Horses of this description are mostly, in action, easy and pleasant to the rider; but they are invariably weaker in the loins than those of an opposite description.

SADDLE-GALLED. This is an injury frequently sustained by horses, either in the field with hounds, or in journeys upon the road; and can only happen by the inattention, neglect, or penury, of the owner, in not affording occasional precaution and inspection to the state of the pad, as well as to the first and safe fitting of the saddle. It cannot but be known to the most superficial observer, that the padding of every saddle becomes progressively harder, in proportion to the perspirative matter it absorbs; and, in direct proportion with the hardness it acquires, the greater is the chance of its being injurious to the parts with which it comes into constant contact, and with a burning heat, produced by a long and repeated friction. Injuries of this kind, although originating in the same cause, vary a little in their effects: with one but slightly affected, a warble may be produced; this happens on the side, and if attended to on its first appearance, is easily obliterated by applications of vinegar, or other mild repellents; but, unattended to, and a frequent repetition of the cause being permitted to take place, they soon become sitfasts, and can only be got rid of by instrumental extirpation. Where any part of the saddle-tree (in the central cleft between the saddle pads) is inconsiderately suffered to come in contact with the withers, or vertebræ of the back, and so continues in friction and pressure, during a chase or journey, certain mischief inevitably ensues: in the first, a swelling, formation of matter, and fistula, may be the consequence; in the latter, an excoriation, followed by a tedious wound, or ulcer, may take place.

SAGACITY. Upon this subject, we find the following observations, in a treatise upon hare hunting, by an old sportsman.—How common, says the author, has it been with our hasty fraternity, upon the loss of a hare, to swear *she is a witch!* But it is my opinion that a real witch, if obliged to run fair (without the aid of

broomstick or pewter dishes) would not be mistress of half the policy, or be able to devise so many shifts for her life: nor would conjurors, catch-poles, or craftsmen themselves (though furnished with four legs) pursue their prey with so much eagerness, industry, or subtlety, as an old hound.

Every hare is no sooner started than she seems immediately to form a scheme, and to take into it the gravity of the air, the position of the wind, the difference of the soil, the succour of a flock of sheep, and every other accident and advantage that may be most likely to baffle her adversaries and favour her escape. Nor is the experienced hound less acute and crafty, to stop at every double, in order to apprehend her where she squats; to try every bye path, gate, or gutter hole, to round it on the side where she seems to bend; to proportion his speed to every degree of alteration in the scent or sinking of the chase. He seems also, with no less curiosity, to distinguish the scent he is engaged in from any fresh offer, as well as to discern and pick it out, as often as she repeats the foiled path.

It is very common for a hare to run a mile or two forward, and then, making a small ring, to fly back in the same track, whilst her enemies are puzzling at the head of her works: and I have been several times an eye witness, continues the writer, of her beating about and thrusting out a fresh hare in her place, and then saving herself by a swift retreat, and two or three large leaps, the better to impose on the eager dogs. I have also seen an old dog, on the like occasion, standing to his scent, looking over his shoulder, and, as it were, scolding at his heedless juniors for going on so eagerly, or for changing their game. A hundred more of this sort of observations you may hear from any old weather-beaten huntsman over a bottle of *October*.

It remains then, that we consider the grounds of all this sagacity (so called); that we more strictly examine into the hidden principles of all these actions, and inquire into the powers and faculties given by the great Creator for such astonishing operations.

Shall we believe with the vulgar, that all this is properly the effect of *thought*, *reflection*, and *ratiocination*? Or shall we maintain, with the schools, that a soul merely sensible (without any reason or thinking faculty) is capable of it? Or, finally, shall we dare to suppose or

suggest, (with the exploded Des Cartes,) that these are the operations of mere matters of machines, not less destitute of sense than reason? If I should pretend to defend the first of these opinions, I draw upon me the philosophers and diviners. The least word in favour of the last, will make my jolly brethren, and all the fair sex, (in behalf of their favourite pugs and grimalkins,) outrageous with me; but to rest content with the middle hypothesis (the sensibility of brutes) is to be at war with my own reason, and to be guilty of the grossest absurdity of the three. But let us examine them severally.

A good number of the sages have served themselves, and perhaps satisfied their readers, with the word *instinct*, which (together with its learned brother, *occult quality*) is not a jot more than an evasion of the question, a mere covert for ignorance.

We might, much better, honestly make confession of our ignorance, and end all dispute. But we must then quit the name of philosophers. For, of what use is such a term as instinct in the inquiry before us, when there is no idea annexed to it? And how ridiculous is it to offer to explain one thing by another less intelligible than itself? Let the question be put, what is it that excites the hound to pursue the hare? The answer is ready.—It is natural instinct. And those who feel themselves satisfied or enlightened by it, need read no further.

Perhaps the Omnipotent has given faculties to these, his creatures, that are beyond the reach of short sighted man! Be it how it will, as often as we presume to inquire into his stupendous works, and to give a rational account of his ways and proceedings with his creatures, we must set about it with such measures as we have, and make use of such terms as we understand, and are agreed upon.

Is it then reason that is the spring of action in the brute creation? and shall we allow them those powers of remembering, relating, distinguishing, compounding, numbering, inferring, approving, comparing, choosing and resolving, which we feel in ourselves? But we must venture to deny that their motions and actions have the semblance of *reasoning*; at least, of such as human reasoning, and of no other have we an idea.

They act, indeed, or are rather acted on, with a just regularity to the ends of their formation; but that very exactness

and regularity is an argument that their motions are not spontaneous; that they are not the effect of thought, choice, and discretion. Among rational creatures (who have choice and liberty) there are fools and madmen; such as mistake their objects, or their way towards them; such as act contrary to the designs of their creation; choose evil for good, and pursue their own destruction. But these thoughtless animals generally are impelled, with an immutable constancy, to the ends of their being; to the preservation of themselves, and the propagation of their species. All their motions are directed to a few ends, for which they were particularly created; and in other respects, they appear almost as stupid and senseless as trees and plants.

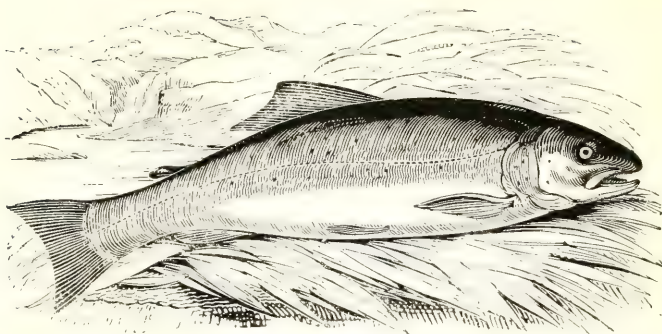
The hare seems to have a foresight of the weather; and is more or less ready to rise and steal off, or to sit close, in prudent proportion to the imminent danger of being hunted by the scent, or followed by the trace. If this be knowledge, what astronomer, after all his gazing, is so deeply learned? But the same creature is yet so utterly insensible of her condition and safety, that she goes loitering to her seat late in a fine morning, and makes her last double in a dirty path, as if she had a design to be hunted home; or to give the unmerciful huntsman a description of the avenues to her house. Both these actions are agreeable to her nature, (performed by young and old; those sitting under a kennel wall, and those that never heard the tongue of a dog).

The hound also, in searching for his game, as well as in pursuit of it, is as cunning as the old serpent; yet he is perfectly without apprehension of his own approaching ruin; and contentedly offers his neck to the same rope in which his brother was just hanged before his face.

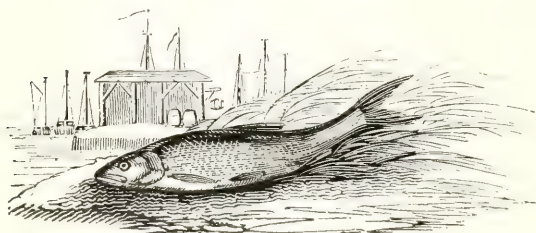
The most skilful architect or mathematician, with all his dexterity, cannot equal the art of a bird in making her nest: yet will the sagacious builder starve upon eggs that are not her own; or purvey for a young one that is an enemy to her species, and which will ungratefully devour its foster parent. Thousands of instances might be added by way of illustration, but they are unnecessary.

Reason, as far as we know any thing of it, is active and self moving; not like dull matter, confined to objects; but at liberty to turn and apply itself to any object presented to it. Reason has the essential power to perceive, to collect, re-

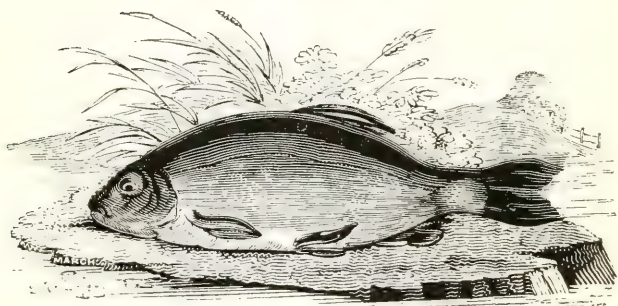
FISH. *Plate V.*



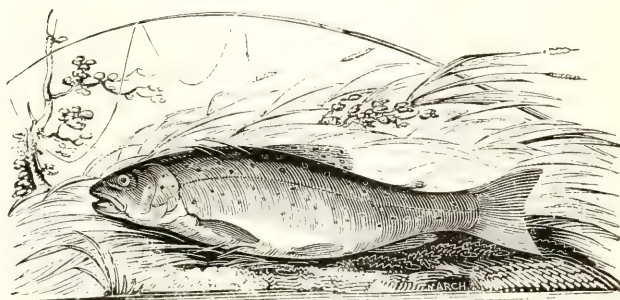
SALMON, *p.* 761.



SMELT, *p.* 816.



TENCH, *p.* 869.



TROUT, *p.* 870.

member, or compare, any object whatever, past or present; and to judge and conclude, by experience and analogy, though the present case be perfectly new, and never thought of before.

The ideas of the ignorant shepherd, are few; yet does he range them, calculate, and conclude, with the same natural (though not acquired) faculties, as the jesuit or the statesman. He esteems his wanton spotted white-foot above smutty coll; and sets a greater price on twenty than on sixteen sheep; by the same notion of beauty and of numbers with which a prince prefers a diamond to a pebble, or computes his power from the multitude of

his forces. But brute animals (though their sagacity seems so much superior to man himself) give not the least sign of any notion of number, beauty, symmetry, or proportion. The noisy hen is not any way concerned for the chick that is withdrawn, till the cry of it enters her ears; and my lady's *beau*, *Cupid*, is as violently attracted by the rank smell of the dirty shock, as of the delicate perfumed Veny herself.

SALLENDERS. A disease of the skin under the knee of a horse. It is of the same nature as the mallenders, and, of course, curable by the same means.

SALMON. This fish was known to the Romans: Pliny speaks of it as being in the rivers of Aquitaine: Ausonius enumerates it among those of the Moselle. The salmon is a northern fish, being unknown in the Mediterranean sea, and other warm climates; it is found in some of the rivers of France, which empty themselves into the ocean as far north as Greenland; and is also very common in Newfoundland, and the northern parts of North America: salmon are taken in the rivers of Kamtschatka.

The salmon lives both in the salt and fresh waters, quitting the sea by a wonderful instinct at certain seasons, to choose a proper situation for depositing its spawn in security, in the gravelly beds of rivers, remote from their mouths: there are scarcely any difficulties but they will overcome, to arrive at places fit for their purpose, ascending rivers hundreds of miles, forcing themselves against the most rapid currents, and springing with agility, almost incredible, over cataracts several feet in height. Salmon are frequently taken in the Rhine, as high up as Basil; they gain the sources of the Lapland rivers, in spite of their torrents, and pass over the perpendicular falls of Leixlip, and Bally-shannon, in Ireland; and of Kennerth and Pont-aberglastyn, in Wales. "Of these last feats (says Mr. Pennant) I have been witness, and seen the efforts of many scores during the time of my stay; some successful, and others driven down by the current, for a more fortunate exertion: the fish seemed to spring up quite straight, and with a strong tremulous motion, completely refuting the vulgar error of taking their tails in their mouths when they make their spring." Mr. P. proceeds to relate other particulars of the salmon's natural history, aided by the observations of the late Mr. Potts, of Berwick. At the latter end of the year, and some in November, salmon begin to press up the rivers as far as they can reach, in order to spawn: when that period approaches, and they have accommodated themselves with a fit place, nature supplies the males with a bony excrescence, growing out of the end of the lower jaw to the length of half an inch or more; this, it is said, aids him in the removal of the gravel, but both male and female assist in forming a proper receptacle for the spawn in the sand or gravel, about eighteen inches deep. In this the ova and milt are de-

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posited, and carefully covered by the parent fishes, who afterwards hasten to cleanse and recover themselves; (the male loses the gristle at the jaw;) for, after spawning, they become very poor and lean, and then are called kipper. At their first entrance into the fresh water, salmon are observed to have abundance of insects adhering to them, especially above the gills: these animals denote the fish to be in high season, and die and drop off soon after the salmon's leaving the sea.

The spawn lies buried until spring, and, without any other care, is nourished and brought to perfection, if not disturbed by violent floods; or by the depredations of other fish, of which the eel, roach, dace, and grayling, are dangerous neighbours. About the latter end of March the young begin to come forth, and gradually increase to four or five inches in length, when they are termed smelts or smouts; about the beginning of May, the river seems to be alive, and there is no forming an idea of the numbers without seeing them. A seasonable flood, however, hurries them to the sea, very few being left in the river; about the middle of June, the earliest of the fry commence their return from the sea into the river, (at that period from twelve to sixteen inches long,) and progressively augment in number and size, until about the end of July, which is at Berwick termed the height of the gilse time (the name then given to the fish of that age). Early in August, they lessen in number, but advance in size, some being from six as high as nine pounds weight: this increase appears surprisingly quick, yet a gentleman of Warrington has given an instance of still more rapid growth: a kipper salmon, weighing seven pounds and three quarters, taken on the seventh of February, was marked with scissars on the back fin and tail, and turned into the river; he was again taken on the seventeenth of the following March, and then weighed seventeen pounds and a half. In this case, the remark of Walton seems to have been more than verified, "that the samlet becomes a salmon in as short a time as a gosling becomes a goose."

All fishermen agree that they never find any food in the stomach of the salmon, which is certainly a fish of prey, having teeth in his mouth as other fish of prey have, and delighting to pursue and seize small fish: it is, however, very remarkable that, although a salmon be taken in the very act of chasing and catching the small fry, yet upon being opened nothing of that nature will be found within it, neither has it ever been discovered by opening these fish, what they do subsist upon. It is likely they may neglect their food entirely during the time of spawning, as sea lions and sea bears are known to do for months together, during their breeding season; and it may be observed that, like those animals, salmons return to the sea lank and lean, and come from the salt water in good condition. It is evident that their food is both fish and worms, for the angler uses both with success, and also a large gaudy artificial fly, which, probably, the salmon mistakes for a gay libellula, or dragon fly.

Scotland possesses numbers of fine fisheries on both sides of that kingdom.

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Ireland (particularly the north) abounds with salmon : the most considerable fishery is at Cranna, on the river Ban, near Coleraine. The nets used are eighteen score, or 360 yards long, and are continually drawing night and day the whole season (nearly four months), two sets of sixteen men each, alternately relieving one another ; the best drawing is when the tide is coming in.

The salmon are cured by being first split, and rubbed with fine salt, and after lying in pickle in great tubs or reservoirs for six weeks, are packed up with layers of coarse brown Spanish salt in casks, six of which make a ton ; these are exported to Leghorn and Venice. Salmon dried are also sent to the London as well as foreign markets, and are sold (under the name of kippered salmon), at the former from nine to fifteen pence per pound. The mode of preparing the dried salmon is as follows :—they are split down the chine, laid open, and salted for many days ; then tied up by the head, and hung in an airy place, shaded from the sun, until quite dry. They are dried with the head upwards, that the essential oil, and the juices of the fish, more abundant in the jole, and on which its true flavour depends, are thus preserved in its interior substance : in a contrary position it would, from the head, soon be lost, and much injure its preservation : if not in warm weather even prevent its cure.

The salmon may justly be termed, among fresh water fish, the superior of the rivers, both from its size and excellence ; it is, however, so universally known, that a brief description will serve : it is handsome in its make, the head small, with a sharp pointed nose ; the colour of the back and sides are grey, frequently spotted with black, sometimes plain, the covers of the gills are subject to the same variety, the belly silvery, (the female may be distinguished by having a longer snout and the scales being more dull, the flesh is said likewise to be drier, of a paler red, to have less flavour, and, according to Walton, she is of inferior size ;) the teeth are lodged in the jaws and on the tongue, are slender but very sharp, the body is longish, and the tail a little forked.

The purging of the salt water is so essential to the salmon, not only in cleansing them from their impurities after spawning, but from every other, acquired by their feeding all the summer in fresh water, that if any are prevented by weirs, &c. from reaching the sea, their heads augment, their bodies waste, and they pine away by degrees, and die for want of it : the porpoises are, however, their great enemy, and for fear of them they are cautious of entering too far into the salt water, therefore keep about the bays near the entrance of rivers into the sea, and this may in some measure account for what has often been asserted, “ that salmons always re-enter the same river in which they had been bred.”

The largest salmon Mr. Pennant ever heard of, weighed seventy-four pounds. In September, 1795, one measuring upwards of four feet from nose to tail, and three in circumference, weighing within a few ounces of seventy pounds, was sold at Billingsgate, and was the largest ever brought there : it was bought by a fishmonger in the Minories, and sold by him at one shilling a pound. The Severn

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salmon are much inferior as to their bulk ; for one taken near Shrewsbury, in 1757, weighing only thirty-seven pounds, is recorded in the British Chronologist, as exceeding in length any ever known to have been taken in that river, and being the heaviest, except one, ever remembered in that town. They have in many parts been caught by angling with an artificial fly, and other baits, upwards of forty pounds weight.

The salmon delights in large rapid rivers, especially such as have pebbly, gravelly, and sometimes weedy, bottoms, and, when feeding, generally prefers the rough and upper parts of gentle streams, and the tails of large ones ; after their feeding time, they retire to the deep and broad water, and swim very fast, usually in the middle of the river near the ground, and more at night than in the day, resting at convenient places, under bushes, weeds, banks, or stones, and then the whole shoal run again. Salmon bite best from six until eleven in the forenoon, and from three in the afternoon until sun-set, especially when there is a moderate breeze upon the water ; the chief months to angle for them are March, April, May, and June, although they will take a fly until October, but they are then out of season ; they are to be fished for with lob-worms and minnows, but a large artificial fly is the most killing.

The rod should not be less than fifteen feet, longer according to the breadth of the river ; limber, yet strong, with wire rings from the top to within three feet where the reel is fixed, with a good running line, without knots, made of either silk or hair (the former is to be preferred), and the reel must be large enough to contain four score yards, or at least as much as will reach more than across the river fished in. Wherever the running line is directed, the reel is proper to be used ; they are of various sizes, and may be proportioned to the coarseness or fineness of the line. The being enabled to give the salmon, when hooked, plenty of line, is of great advantage to the angler ; for the fish will at first run swiftly, and afterwards leap and plunge, so that he must be humoured, and the line slackened and wound up again with great skill, until he is quite subdued, when he may be led to some shallow, where, on his belly touching the bottom, he will turn on his side, and be so jaded, that he may be taken out by the gills. Salmon anglers, however, are generally provided with what is called a gaff, which is a stick something pliable, with a large barbed hook at the end, and which can be thrust into the head or gills of the fish, to lift him from the water ; for which purpose a landing-net is too small.

The line from the reel, after being run through the rings, is to be joined to the foot or gut length, which must be looped at each end, the one to fasten it to the reel line, the other to the fly ; this foot-length must be made of three strong silk-worm guts twisted together, three lengths will be sufficient, as only one fly is used ; the link to which the fly is fixed should be looped on the same way, for the convenience of changing it, if the fish refuse one sort of fly, and another is wished to be tried.

In trolling for salmon with minnow or grayling, the foot-length or

links must be about three yards, with a swivel or two, as well to help the bait's playing freely, as to prevent the line from twisting and breaking ; a large shot or two, about a foot from the bait, will keep it under water when played, and which may be either added to or diminished, according to the strength of the current, (for this kind of angling is chiefly in the streams, and is best when the water is clearing off after a fresh, or when upon the rise, before it becomes too thick.) The rod must have a stiffer top than for fly-fishing ; the hook large, and long in the shank, with a very small one fixed above, at nearly the distance of the length of the fish baited with ; the bait is to be drawn upon the hook like a worm, by putting it into the mouth, and bending it round the curve of the hook until it comes out a little above the tail, so as to keep the tail a trifle bent ; the small hook (which should be made blunt at the point) must then be put through the lips of the fish, to prevent its slipping into the bend of the large one. Some use a leaded, and others a snap, hook ; but the above method is preferable. When thus prepared, the line should be let out from the reel, about the length of the rod ; the bait thrown across the stream, and the line drawn with a pretty brisk motion up it, which causes the bait to spin well, and entices the large fish to take it. Some anglers strike salmon as they seize the bait ; but it is the surest way to let them go down with it for a time : those who use themselves to strike immediately, should be careful, when a salmon runs at the bait, not to snatch it away through surprise before he takes it, as is often done even by tolerable anglers.

In fishing for salmon with lob worms, the trolling tackle is to be used, and two of these worms well scoured, put on the hooks ; the first should be drawn quite above the top of the shank of the large hook, and the small one run through its head ; the second worm is to be run some way above the shank, and drawing the first down, let them hang with their tails one above the other, preventing the point of the large hook from appearing through the worm ; lay in the worms at the bottom of a stream, holding the rod still, and keeping as much as possible out of sight : if in a short time there is no bite, move the line gently up the current, and the worms will play and shew themselves by means of the swivels, and thus allure the salmon to take them ; if no success follows after a few trials, seek another stream, and there repeat them. This mode is to be used when either the water is too much discoloured for the artificial fly, or when the day is bright, with scarce any wind stirring, and the water so clear, that the salmon can discover the deception of it ; they can be taken by no other method of angling than this and minnow fishing, when the weather and water are in such a state.

Another way of fishing with lob worms for salmon, is to run the hook through the middle of a lob worm well scoured, and pull it above the shank ; then take a second, and put the hook in an inch below the tail, drawing it on the hook about three-fourths of the length ; the head of the worm being at its point, then draw down the first to the latter worm : a piece of lead with a small hole through it (which is called a plumb), must be fastened upon the line two feet

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above the hook ; by which means the bait can be kept in any certain spot, and pulling the line tight, the plumb will be felt at the bottom, and the current will give motion to the bait with the link below it ; when the bait has remained a few minutes, gently move it about a yard up the stream, and again let the plumb rest at the bottom ; this will excite the attention of the fish, and frequently tempts them to seize the worms.

A third way, is with four (or more) worms : put the hook through three of their heads, and pull them upon the line ; the last should be the largest, and the hook is to be thrust in an inch below the tail, and his head to cover its point ; the rest of the worms upon the line are to be slipped down to the shank of the hook, but not upon it ; the worms will then play around the hook in a way the most alluring to attract the salmon. In trout fishing, this plan of fixing the worms is stated to have been very successful, and when only one worm is used, the same gentleman directs the hook to be inserted at its head, and the tail left to play at the end of the hook.

Mr. Bingley, in his *Animal Biography*, notices salmon hunting, as it is termed, and practiced by a man named Graham, in the north. When the tide recedes, what fish are left in the shallows, are discovered by the agitation of the water : this man, with a three-pointed, barbed, spear, fixed to a shaft fifteen feet long, plunges into these pools at a trot, up to the belly of his horse. He makes ready his spear, and when he overtakes the salmon, strikes the fish with almost unerring aim ; that done, by a turn of the hand, he raises the salmon to the surface, wheels his horse towards the shore, and runs the fish on dry land, without dismounting. He has killed from forty to fifty fish in a day ; ten are, however, no despicable booty. His father was probably the first person that ever adopted this method of killing salmon on horseback, and who was in October, 1811, living at Fish-house, in the parish of Dornock, near Gretna Green ; and, although ninety-eight years of age (armed with a trident, and on horseback) was so dexterous, as to strike and bring out of the water, a salmon of considerable weight.

SALMON-FRY, called in some counties samlets, salmon-pinks, salmon-smelts, &c. are by some said to be found in all rivers frequented by the salmon, and to be the produce of the spawn left by them. According to Mr. Pennant, the samlet is the least of the trout kind ; is frequent in the Wye, in the upper part of the Severn, and the streams that run into it, in the north of England, and in Wales : it is by several imagined to be the fry of the salmon ; but Mr. P. dissents from that opinion, for the following reasons :

First, it is well known that the salmon-fry never continue in fresh water the whole year ; but, numerous as they appear on their first escape from the spawn, the first vernal flood that happens sweeps them into the sea, and leaves scarcely one behind.

Secondly, the growth of the salmon-fry is so quick, as suddenly to exceed the dimensions of the largest samlet ; for example, the fry that have quitted the fresh water in the spring, not larger than gudgeons, return into it again a foot or more in length.

Thirdly, salmon attain a considerable bulk before they begin to breed; the samlets, on the contrary, are found male and female (distinguished by the milt and roe, although it has been a vulgar error to believe that there were no other than males of this species,) of their common size.

Fourthly, they are found in the fresh waters in all times of the year, and even at seasons when the salmon-fry have gained a considerable size.

SALMON TROUT. This fish differs from the salmon in so many particulars, that the fishermen distinguish them at first sight, and all agree that they are a distinct species. It is not peculiar to the northern rivers, though perhaps most numerous there, as the fishermen will take five or six for one salmon or gilse, and do not value them at half the price.

The salmon trout is handsome in its form, is more richly adorned, and is longer, thicker, and rounder in proportion than a salmon; the scales are small, beautifully intermixed on both sides of the lateral line, and also the covers of the gills, with spots; the fins are strong, and the tail shorter, but not so much forked, as the salmon's; the flesh is exceedingly rich, and in some countries better esteemed than any fish of the salmon kind; they are generally from two to six pounds weight, some run larger; they are often taken when angling for salmon or large trout, their haunts being the same. Early in the spring they enter the rivers, are in prime season from the end of April until July, and spawn chiefly in September; but that period varies in different waters: the rod should be as for salmon, the reel line strong, and foot-length about three yards, of fine twisted silk-worm gut, or the strongest single, with the knots well whipped. When the water is clear enough, the baits should be large gaudy flies; if discoloured, well scoured worms, with which, having a running line, angle in or near the sides of streams, with a shot or two, fifteen inches from the hook, which should be No. 3, or 4. This is a strong fish in its element, and therefore, when hooked, plenty of line must be given.

SALTRAM. A brown horse, foaled in 1780, bred by, and the property of, John Parker, Esq. (afterwards Lord Boringdon) of Boringdon, Devonshire, sold to his R. H. the Prince of Wales.

Saltram was got by Eclipse, his dam, Virago.

At Newmarket Craven Meeting, 1783, Saltram won a sweepstakes of 300gs, each 8st. A. F. (3 subscribers) beating Mr. Douglas's colt, by Justice, out of Ceres's dam:—2 to 1 on Saltram. At Epsom, May 29, he won the Derby stakes of 50gs h. ft. for three years old; colts, 8st. fillies, 7st 11lb. last mile (34 subscribers,) beating Colonel O'Kelly's Dungannon, Mr. Walker's Parlington, Duke of Queensberry's Gonzales, Colonel O'Kelly's Cornet, and Mr. Davis's Phenomenon:—5 to 2 against

Saltram, 5 to 2 against Cornet, 5 to 1 against Dungannon, 8 to 1 against Gonzales, 10 to 1 against Parlington, and 20 to 1 against Phenomenon. In the first October Meeting, at 8st. he received 50gs compromise from Lord Egremont's Rinaldo, 8st. 7½lb. D. I. 500gs. h. ft.

At Newmarket second spring meeting, 1784, Saltram beat Lord Foley's Oliver Cromwell, 8st. each, R. M. 100gs:—5 to 4 on Saltram. He was afterwards sold to his R. H. the Prince of Wales.

At Newmarket first spring meeting 1785, Saltram, 8st. 6lb. won a sweepstakes of 200gs. each, h. ft. Ab. M. (4 subscribers) beating Lord Clermont's Cantator, 7st. 2lb —Even betting. This was the last time of his starting. He was afterwards a Stallion, and covered at Aston Clinton,

Hertfordshire, in 1789, at 16gs and afterwards in Surrey.

Saltram was sire of Mr. Dymock's Tiffany, Prince of Wales's Caroline, St. David, Queen of Sheba, and Whiskey, Lord Grosvenor's Sylph, Duke of York's Laurestina, sister to Laurestina, Rose, and Spankaway, D. of Bedford's Sprightly, Lord Clermont's Sweeper, Mr. Bullock's Royalist, Mr. Turner's General, Oscar, and Henrietta, Mr. Broadhurst's Clytus, Mr. Rutter's Coal-Merchant, Mr. Dilly's General, Mr. Wyndham's Tearcoat, Mr. Delme's Peeping Tom, Sir H. Williamson's Septem, Mr. Hyde's Comer, Mr. Durand's Whip, &c. &c. all winners, also of the dam of Royala, Piscator, Scar; of the dam of Miss Hayes, afterwards Modesty, Harriet, Master Richard, Alfana, Cacomba; of the dam of Lady of the Lake, Sir Tooley Whagg O'Shaughnashine, &c. besides many others.

SAMPSON. A black horse, foaled in 1745, bred by James Preston, Esq. and sold to Mr. Robinson of Malton, Yorkshire. Sampson was got by Blaze; his dam, (Baboon's dam) by Hip, his grandam by Spark, (son of the Honeycomb Punch;) great grandam by Mr. Lister's Snake out of Lord D'Arcy's Queen.

In 1750, Sampson won £50 for five year olds, at Malton, beating, at three heats, Mr. Hunt's Jigg of Jiggs, who won the first heat from Sir William Middleton's Thwackum, Mr. Croft's Red Robin, Mr. Langley's Star, &c.; and the subscription purse of £50—four miles, at Hambleton, beating Thwackum, &c.; he also won the king's plate at Lichfield, beating, at three heats, Mr. Martindale's Gustavus, Lord Gower's Jubilee Dickey, and four others; Gustavus won the first heat from Jubilee Dickey, and Sampson the two following heats from Gustavus. At Newmarket in April, 1751, he won the subscription plate or purse of £50, weight 10st. beating, at two heats, Lord Portmore's Oroonooko, Mr. Panton's Drudge, and Lord Gower's Squirrel.—The first heat was a long time very severely disputed at the rising ground at the running up to the ending post, between Sampson and Squirrel, when the superior strength of the former prevailed, to the great joy of the Yorkshire gentlemen who had large sums of money depending on him. The bets at starting, were gold to silver on Sampson, and after the heat, even money against him, owing to Drudge (who was sold, a short time before starting, to Sir Edward Hale for 350gs,) not running for the first

heat, and who was expected to have made a better figure than he did. Sampson afterwards walk'd over for the king's plates at Winchester and Salisbury; won the king's plate at Canterbury, beating, at two smart heats, Sir Edward Hale's Drudge; also the king's plate at Lewes, beating, very easy, Sir Charles Goring's Tom Thumb, by Goldenlocks; and walk'd over for the king's plate at Newmarket, in October; where, in April following, he started against Thwackum for the King's plate, when Sampson won the first heat, but not very easy, though the odds were then 8 to 1 in his favour; the second was a remarkably fine heat, which Sampson lost, with the mortification of being whipped for the first time; and the last heat was closely contested for the whole four miles, and allowed to be the finest that had ever been run between two horses. The above were the only times of Sampson's starting; and the reason assigned for his being beat, was, that his eye-sight (at all times tender) particularly failed him after the first heat; a conjecture not ill-founded, as he had beat Thwackum when they met before this last race, tolerably easy.—Sampson was rode by John Singleton, and Thwackum by Thomas Jackson, who both proved themselves to be excellent and judicious riders.

Sampson then became a public stallion at Malton, Yorkshire; and afterwards a private one in Lord Rockingham's stud, where he died in the year 1777, aged 32. He was sire of Engineer, Bay Malton, Treasurer, Pilgrim, Cosmo, Solon, Phocion, Plantagenet, Dauphiness, Flounce, (Nottingham's dam) and several others.—He got the dam of Miss Cornforth, that bred Ormond, Miss Tippet, &c. He was also sire of Mr. Edward Carter's old Mare, that bred Mayfly, Blackbird, and his R. H. the Prince of Wales's Tot, that won the gold cups at Richmond and Doncaster in 1789.

Sampson was 15 hands 2 inches high; The dimensions of his fore-leg from the hair of the hoof to the middle of the fet-lock joint, 4 inches; from the fet-lock joint to the bend of the knee, 11 inches; from the bend of the knee to the elbow, 19 inches; round his leg below the knee, (narrowest part) 8½ inches; and round his hind-leg, (narrowest part) 9 inches.

The above was taken by the late Lord Rockingham himself.

Sampson was the largest boned blood-horse that ever was bred, and the gentleman who communicated the above, observes, that he has tried a great number since, but has not found one to equal him.

SANDCRACKS. A defect in the horse's foot. They consist of a separation of the fibres of the hoof in a perpendicular direction. If they extend to the coronet, they are extremely troublesome to cure. Those horses are most liable to them that have either strong and brittle hoofs, or narrow heels. Blood horses are more subject to them than inferior horses.

In the treatment of them, Mr. Denny says, the part around the crack must be rasped thin. The firing iron should be drawn above and below it to the extent of the fissure, in order to prevent its extension. The iron should also be carried over the crack, by which means a slight degree of moisture will exude, and glue up the part; which may be covered with some of the following ointment, spread on tow, and secured by a bandage.

Take Ointment of marsh-mallow, two ounces;

Common turpentine, one ounce.

Mix.

The horse must have a bar shoe, which will rest firmly on the frog, and be hollowed in the part which is opposite to the seat of the disease, so that no pressure may be made on that part of the foot. Rest should also be allowed for a few days; and after this, only moderate exercise permitted, until the fissure has descended towards the inferior part of the foot.

Besides this, we are advised to bathe the coronet and hoof twice a-day with the following, in order to promote the growth of the horn from the coronet.

Take Ointment of marsh-mallow,

Barbadoes tar, of each three ounces;

Spirit of turpentine, one ounce.

Mix and make the embrocation.

S C A B. The disorder in horses so called, is the species of mange become inveterately dry and scabby by its long duration.

SCALDING, a name given to some caustic remedies applied hot. Gibson speaks of a compendious way of curing the poll-evil, where there is an exceedingly bad disposition, and a very great foulness, by scalding, as the farriers term it. Several, he says, succeed very well in it. The manner is as follows:

Take of Corrosive sublimate,

Verdigrise in fine powder,

Blue vitriol, of each two drachms;

Green copperas, half an ounce;

Honey, or Ægyptiacum, two ounces;

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Oil of turpentine,

Train oil, of each eight ounces;

Rectified spirit of wine, four ounces.

Mix these together in a pint bottle for use.

Some make their scalding mixture milder, by using red precipitate instead of sublimate, and white vitriol instead of the blue; others leave out the train oil, and use only oil of turpentine and linseed oil, which makes but little alteration; and some use the following with good success:

Take of Verdigrise, half an ounce;

Train oil, half a pint;

Oil of turpentine, four ounces;

Oil of vitriol, two ounces. Mix.

The manner of scalding is first of all to clean the abscess very well, with a piece of sponge soaked in vinegar and squeezed. Then put a sufficient quantity of the mixture into a ladle with a spout, and when it is made scalding hot, pour it into the abscess, closing the lips together with one or more stitches in proportion to its size. This is to remain so for several days, and if good matter appears, and not in an over great quantity, it will soon do well without any other dressing besides bathing with spirit of wine. But if the matter begins to flow in great abundance, and of a thin viscid consistence, it will require to be scalded a second time or oftener, if the same disposition continue. The corrosive ingredients, whereof these liquid mixtures are compounded, would be harsh to human flesh, but agree very well with horses, whose fibres are more rigid; and therefore such sharp applications help greatly to contract the vessels. This method of proceeding is chiefly useful when the poll-evil happens to be the crisis of an acute fever, or when it happens to horses that have been surfeited, or under some other chronical disorder; for in all cases proceeding from common accidents, cleansing tinctures and fresh dressings will do the business.

Here our author subjoins the case of a horse that was cured of a poll-evil by scalding. "In this," says he, "are some very extraordinary circumstances that will give further light into the nature of this malady, and the method how such cases ought to be treated, especially when they proceed from some previous sickness, which is often the cause of a poll-evil, though hitherto not much attended to by practitioners.

This was a young troop horse that had been pampered for sale, and had fallen into a very dangerous fever, attended with

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a great stupor and heaviness, with a total loss of appetite, and a loathing of his food. The animal had but little relief till a large critical swelling arose on his poll, at first about the bigness of a penny loaf, but in a few days it grew to a much greater size, for the weight of it made him stoop his head as low as his manger, and by degrees the swelling grew so prodigiously that his muzzle came within a few inches of the ground, and rose so suddenly all along his neck, and down to his shoulders and fore-legs, that it was impossible to raise his head above a foot from the ground. His neck measured above a quarter of a yard broad over his mane, his shoulders were blown up to a monstrous size, like some horses that have been staked under the arm. Indeed he grew to such a spectacle, that all who saw him thought it was impossible he should recover. One thing, however, was much in his favour; for, as the swelling increased, his appetite grew better; and while he continued in that posture with his mouth to the ground, which was about three weeks before the tumour broke, he ate his whole allowance of hay every day, which was laid down before him a little at a time, and licked up bran and oats out of a flat basket, as much as was sufficient for a horse in health, that did no business; and drank plentifully of water-gruel, which was given by holding about half a pailful at a time, edgeways, that he might get his head into it. When the tumour broke, it discharged a very large quantity of curdled matter at first, which soon changed to a viscid dusky slime; the orifice was on one side near the occiput, though the matter had also a drain from the other side, and continued running for about a month or five weeks, in very great quantity, before the swelling of his neck and shoulders came down, and before he came to the free use of his neck and limbs. The running by this time was much abated, but the matter still of no good consistence; and therefore having now no other disorder besides the abscess, and that reduced to a moderate compass, I caused it to be laid open, and the part scalded in the manner already described. I deferred opening it all this time, though I was much solicited to do it sooner; for I found by this delay the fever was entirely removed, and the distemper confined wholly to a single part: whereas, if it had been laid open sooner, the symptoms might again

have been renewed, the discharge been less perfect, the swelling of the neck and shoulders would not have come down so well, nor the malady have been so completely removed, either by applications to the part, or by artificial drains and issues of any kind. After the first scald, the matter was small in quantity, and looked well; but in ten days, it began to look thin and of a dirty colour again, so that I caused him to be scalded a second time, after which it healed up, and he had three or four doses of purging physic, and some antimonial powders, given him; but the part being still weak, and the horse naturally full of motion, especially with his head, it swelled again some months afterwards and broke; which accident proceeded from this, that the muscular flesh was wasted more on one side of his pole than on the other, which gave some restraint in pulling down his head, and consequently caused fresh pain till the flesh grew, and that the muscles on both sides came to their proper equilibrium: and, though it broke out again once or twice afterwards, yet the swelling was only like a large marble, the matter was good, and did not continue running above two or three days. And about a year afterwards, the flesh on one side was grown equal to the other, and the horse continued sound and useful many years without any visible mark or deformity.

SCENT. Upon this depends all the hopes and pleasures of the sportsman. Scent is an effluvium, which, in a greater or a less degree, is continually issuing from the bodies of animals, and other substances; or, in other words, it consists of that animal exudation by which a dog is enabled to inform his master of his approach to game. The effluvium constantly issuing from the pores of all animal substances, consists of minute particles or corpuscles, which, driven by the wind, or otherwise, and coming in contact with the olfactory nerves of the dog, enable him to discover the proximity of the object of pursuit; and, after having ascertained the direction of the vapour, he cautiously ascends, as it were, the stream, and, by practice, becomes a proficient in pointing out the identical situation of the source whence the effluvium or scent issues; and a pointer or setter thus prepares his master for the springing of the game.

Thus sings Somerville:—

Should some more curious sportsman here inquire,
Whence this sagacity, this wond'rous power





Of tracing, step by step, or man or brute?
 What guide invisible points out the way
 O'er the dank marsh, bleak hill, and sandy plain?
 The courteous muse shall the dark cause reveal.
 The blood, that from the heart incessant rolls
 In many a crimson tide, then, here and there,
 In smaller rills disparted, as it flows
 Propell'd, the serous particles evade,
 Through th' open pores, and with the ambient air
 Entangling mix, as fuming vapours rise,
 And hang upon the gently purling brook,
 There, by the incumbent atmosphere compress'd,
 The panting chase grows warmer as he flies,
 And through the net-work of the skin perspires;
 Leaves a long steaming trail behind, which, by
 The cooler air condensed, remains, unless
 By some rude storm dispersed, or rarefied
 By the meridian sun's intenser heat.
 To ev'ry shrub the warm effluvia cling,
 Hang on the grass, impregnate earth and skies.
 With nostrils op'ning wide, o'er hill o'er dale
 The vig'rous hounds pursue; with ev'ry breath
 Inhale the grateful steam; quick pleasures sting
 Their tingling nerves, while they their thanks repay,
 And in triumphant melody confess
 The titillating joy. Thus, on the air
 Depend the hunter's hopes.

Beckford observes—"I cannot agree with Mr. Somerville in thinking scent depends on the air only. It depends also on the soil. Without doubt, the best scent is that which is occasioned by the effluvia, as he calls it, or particles of scent, which are constantly perspiring from the game as it runs, and are strongest and most favourable to the hound, when kept by the gravity of the air to the height of his breast; for then it neither is above his reach, nor need he stoop for it. At such times, scent is said to lie *breast high*. Experience tells us, that difference of soil occasions difference of scent; and on the richness of soil and the moderate moisture of it, does scent also depend, I think, as well as on the air. At the time leaves begin to fall, and before they are rotted, we know that the scent lies ill in cover.—This alone would be a sufficient proof that scent does not depend on the air alone. A difference of scent is also occasioned by a difference of motion; the faster the game goes, the less scent it leaves. When game has been ridden after, and hurried on by imprudent sportsmen, or has been coursed by sheep dogs, the scent is less favourable to hounds; one reason of which may be, that the particles of scent are then more dissipated."

But we are of opinion, that although Somerville is perfectly correct, Beckford is

not absolutely wrong; Somerville has considered it in a philosophical manner, while Beckford, as a practical sportsman, has stated what has presented itself to him, and has noticed the cause rather than the effect. However, that scent must always depend on the state of the atmosphere, a very few words will clearly shew. From what has been already stated, it will be easily perceived, that scent is a sort of fluid, the continuance or dispersion of which must depend on the state of the atmosphere: thus the keen air which generally blows from the north or east dissipates the scent, and every sportsman is aware that when the wind blows from the quarters just mentioned, the scent is seldom good. With the soft air from the south, the case is different; at such times, it would appear that the atmosphere is in that state which prevents, as it were, the escape of the scent; or, in other words, the particles constituting scent, which escape from the animal, then become thick and heavy, and fall, on issuing from the animal, upon the ground, or adhere to the blades of grass, or other obstacles with which they come into immediate contact, and a considerable time generally elapses before they become dispersed, unless, indeed, a sudden alteration in the weather takes place. Beckford's observation respecting the scent lying breast

high, although a generally received opinion, appears to us, nevertheless, an erroneous notion altogether. He says, that when the scent, "by the gravity of the air, is kept to the height of the hound's breast, it is neither above his reach, nor is it necessary he should stoop for it. At such times, scent is said to lie *breast high*." The fact is, that at such times when hounds run with so good a head, the scent falls, rather than rises, to the height of the dog's breast; it is not able to rise, or it would be very quickly dissipated. Whenever, therefore, hounds run *breast high*, the particles of scent appear to condense, and are of course thus rendered more cognisable by the olfactory organs of the dog.

As to scent depending on the nature of "the soil," this also is a position that requires elucidation. It is well known that upon fallows or hard roads, the scent is never good, unless, indeed, the state of the atmosphere is such that the particles of scent condense and fall upon the ground, when hounds are able to carry the scent tolerably well upon such places; and we make no doubt, most sportsmen have observed that the scent over fallows and upon roads varies very considerably. In pasture fields, and other places, where obstacles interpose and arrest the particles of scent in their progress, the scent will be good, and for the same reason the scent is always good in cover. In respect to a rich soil yielding a better scent than poor ground, this arises from the circumstance of its being better and more thickly covered with vegetation, and consequently opposes numerous obstacles to arrest the particles of scent; while a poor soil, by being more thinly clothed, and often almost bare, of course, cannot present the same detainers to the progress of the scent; and, consequently, the hunting over such ground is more difficult for hounds. But to shew more clearly that such is the state of the case, it may be observed, that in those places bordering on heathy mountains, whenever a fox happens to make for the hills (where heath is growing) the scent is always uncommonly good, from the circumstance that a great number of obstacles are presented, to which the floating particles, called scent, adhere.

Even the following remarks of Beckford himself, seem to prove the correctness of the preceding observations:—he says, "I believe it is difficult to ascertain what scent exactly is; I have known it

alter very often in the same day; I believe, however, it depends chiefly on two things, the condition the ground is in, and the temperature of the air; both of which, I apprehend, should be moist without being wet: when both are in this condition, the scent is then perfect; and vice versâ, when the ground is hard and the air dry, there seldom will be any scent. It scarcely ever lies with a north or east wind; a southerly wind, without rain, and a westerly wind that is not too rough, are the most favourable. Storms in the air are great enemies to scent, and seldom fail to take it entirely away. A fine sun-shiny day is not often a good hunting day; but what the French call *jour des dames*, warm without sun, is generally a perfect one. In some fogs I have known the scent lie high; in others, not at all; depending, I believe, on the quarter the wind is then in. I have known it lie very high in a mist, when not too wet; but if the wet hangs much on the boughs and bushes, it falls on the scent and deadens it. During a white frost, the scent lies high; as it also does when the frost is quite gone; there is a time, just as it is going off, when it never lies: it is a critical minute for hounds, in which their game is frequently lost. In heathy countries, where the game brushes as it goes along, scent seldom fails. Where the ground carries, the scent is bad for a very evident reason, which hare hunters, who pursue their game over greasy fallows, and through dirty roads, have great reason to complain of."

It has been observed that, in some particular spots, in almost every country, let the temperature of the air be what it may, that hounds can never carry a scent across them. There is little doubt, however, even in these cases, that the reason of this failure of scent might be philosophically and satisfactorily explained.

The ingenious author of *Observations on Hare Hunting*, in speaking of scent, says, the qualities of those portions of matter that discharge themselves from the bodies of beasts of game, would much better suit the experiments of a philosopher than a huntsman. Whether considered as an extraneous stock of odoriferous particles given them by Divine Wisdom for the very purpose of being hunted? Whether they are proper identical parts of the animal's body, that continually ferment and perspire from it? Whether these exhalations are from the breath of the lungs, or through the skin of the

whole body? are queries that deserve the subtlety of the virtuoso.

The author contends that the particles of scent evaporated must be inconceivably small, as he has taken many hares, after a chase of two, three, four, or five, hours, without being able to perceive the least difference in weight from those that have been killed on their forms; nor from gentlemen who have hunted box hares, could he learn, that they discovered any visible waste in their bodies, further than might be supposed to arise from the effort of discharging their grosser excrements. But, admitting the loss of two or three drachms after so long a fatigue, yet how minute must be the division of so small a quantity of matter, when (deducting the number of those particles that are lost upon the ground, dissipated in the air, and extinguished or obscured by the fetid perspirations of the dogs and other animals) it affords a share to so many couple of hounds, for eight or ten miles successively. To a sportsman, it is needless to observe (continues the author) that scent depends on the state of the weather, and is affected by its vicissitudes; a storm will, in an instant, destroy it; nor is this to be wondered at, if we consider these particles of scent are of an exactly equal specific gravity with those of the air, and which always fall and rise in just proportion to it. Huntsmen, who are hasty, rate and curse those hounds (which yesterday were the best in England) for galloping with their noses in the air as if their game was flown, when, in fact, it is in vain for them to seek the scent in any other place, the increasing weight of that fluid element having wafted it over their heads. The most terrible day for the hare is, when the air is in its mean gravity tolerably moist, but inclining to grow drier, with a mild breeze; the moderate gravity buoys up the scent as high as the dog's breast, the vesicles of moisture serve as canals to carry the effluvium into their noses, and the gentle wind so much helps to spread it, that every hound, even at eight or ten paces distance, especially with the wind, may have a due portion.

It seems strange, at first view of the case, that a hare, after a hard run of eight or ten miles should, nevertheless, continue as heavy as when she first started, although that evaporation, called scent, has been constantly issuing from her; and perhaps the only way of accounting for this seeming paradox is, by supposing that the

continual discharge, just mentioned, is supplied by the atmospheric air, something after the manner of inspiration or expiration; thus, it may be supposed that every time the hare draws her breath, the pores of her body inhale, as it were, a certain portion of the atmospheric air, which is again ejected in the form of scent.

But the author continues — That the same hare will, at divers times, emit finer or grosser particles, is equally manifest to every one observant of the frequent changes in a single chase. The coursing of a cur dog is ever the occasion of a fault; and, after such an accident, the hounds must be again and again put upon the scent before they will acknowledge it for their game: the reason is, the alteration in the motion of the chase causes one in the perspiring particles. The alterations of scent in a yielding hare, are less frequently productive of faults, because they are more gradually and insensibly growing smaller; but that alterations there are, every dog-boy knows, by the old hounds pressing forward with greater earnestness as the hare is near her end.

The coursing of a cur dog will certainly cause a difference in the scent; that is, it will make the scent much worse; but, with all due deference to the author from whom we have been quoting, we are of opinion that this difference mainly arises, not so much on account of the alteration in the motion of the chase, as from the dog following the hare, and thus sweeping away the particles of scent before the hounds reach the spot.

But to proceed: — Motion, continues the author, is the chief cause of discharging the particles of scent, because a hare is very seldom winded whilst quiet in her form, although the hounds are so near as nearly to run over her; sometimes, indeed, she is chopped upon her seat; but this, probably, is the consequence of her own curiosity, in moving and rising up in it to watch the proceedings of her enemies. It is very plain, the slower the hare moves, the stronger and grosser are the particles of scent she leaves, which is one reason that the morning walk will yield scent so much longer than in flight when hunted.

It is diverting to hear country fellows, on sight of a hare, cry out she is all over in a *sweat*; the most indifferent sportsmen know to the contrary, and that, on the nicest examination, no proof has ever been found any more than of the sweating

of a dog or a cat. Another prevailing notion is, that the longer a hare is hunted, the weaker the scent grows. But, continues the author, I never found such an alteration; and if any judgment is allowed to be formed from the action of the hounds, the old staunch dogs will be found to rate on, towards the conclusion of the chase, with additional vigour, surely not from decay of scent, but the contrary, and from which they become, every yard they go, more sensible of their near approach to the hare, than all the hunters in the field. Yet, should it be still maintained that the scent does really decrease the more a hare is pressed, what can it be owing to?—To lay it down as fact, without offering some reason, is certainly a very arbitrary determination. Is it because she is run out of wind? If that is allowed, those who insist that the hounds hunt the *foot*, must give up the argument; for, what reason can be assigned why a hare's feet, immediately preceding her death, do not leave as strong and equal a scent as at first starting from her seat?

Hares and other creatures, hard run, perform their inspiration and expiration very quick, at least in the proportion of six times to one, supposing them not urged beyond their natural pace, or to remain perfectly cool and quiet. If, therefore, *six* expirations, under severe pursuit, are equal to *one* when a hare is just started, what difference can there be in the scent?

It may be alleged, that the scent lies stronger at first, because it makes its return from a full stomach, or, that, at starting, the lungs not having suffered much distension, she breathes freer, which, by running low to the earth, intermixes better with the herbage. On the other hand, that a hare long hunted, runs high, and of course emits her breath farther off from the surface; therefore, more liable to be soon separated, and overpowered by the wind.

To the first part it is answered, the faster a hare runs the longer she stretches; therefore, the lower she lies to the ground; but the further the hounds are behind, and her breath (although expired ever so free) remains a long time, in proportion to the distance, before the dogs come up to enjoy it.

In the second place, the hard pressed hare makes her stretches shorter, which brings her body naturally more upright and high from the surface, and the scent

is hereby more likely to suffer from the wind and weather; but then, as she breathes quick in proportion, and shortens her pace in a sensible degree, the hounds, so much as she shortens, do they hasten, being urged on by an increasing scent. The only natural reason why a hare, towards the end of the chase, is often difficult to be killed, is, that she confines her works in a much shorter compass, doubles here and there, over and over, shifts, redoubles, and tries all places for rest and security, making very much foiling in a little space, which variety of *equal scent* puzzles the hounds exceedingly; and if the hounds are not thorough masters of their business, or if the air be not in due balance, the difficulty will be greater.

It is also to be remembered, that there is no small accidental difference in the very particles of scent, which are more distinguishable at one time than at another; that there is a difference in other animals of the same species, is evident, from the hounds formerly used for tracing and pursuing thieves and deer stealers, and likewise from any common cur or spaniel, who will hunt out his master or his master's horse, distinctly, from all others; and that it is the same with the hare is no less visible from the *old* beagles, which will not readily change for a fresh one, unless she start in view, or unless a long fault happen, which puts them in confusion, and inclines them in despair to take up with the next scent that presents itself.

Of the influence which frost has upon scent, the author observes, that he has often been disappointed in the hounds hunting the trail of a hare up to her seat, and frequently been able to hunt her walk in one part of a field, and not in another; that at ten or eleven o'clock, the same walk which gave the least scent at seven in the morning, has afforded the best; but what has been more perplexing, the hounds have only been able to hunt it at the wrong end, or backwards, and after many hours' expectation; the fact is, that hounds are never so far from their game as when they hunt it the warmest. All these accidents are only the effect of the *hoar frost*, or very gross dew (for they never happen otherwise) and from thence must the miracle be accounted for. At the going off of a frost, the mercury is commonly falling, and by consequence the scent sinking into the ground. The earth is naturally, on such occasions, fermenting, stinking, and very porous; so that it

is impossible but that most of the particles of scent must be corrupted, buried, or destroyed by stronger vapours: it is common to hear it said, the hare carries dirt in her heels; but that is not all, for by what has been alleged it is plain she is not so eagerly pursued by the scent of her feet only. Thus, having ascertained that a *thaw* tends to corrupt the particles of scent, it leaves a fair reason to maintain that the *frost* fixes, covers, and preserves them. Whether this is done by intercepting their ascent, and precipitating them to the ground by the gross particles of frozen dew, or whether by protecting them from the penetrating air, is not professed to be decided; but the facts are certain, confirmed by experience. We have therefore only to take notice that the hoar frost is very often of short continuance, changeable and uncertain, both as to its time and place of falling; and hence all those difficulties are easily resolved. Let the huntsman, as soon as he is out of bed examine the glass in the windows, which commonly discovers whether any hoar frost has fallen, what time it came, and in what condition of continuance or going off it is for the present. If it appears to have fallen at two, three, or four in the morning, (suppose in the month of October, and other times of the year must be judged of by proportion,) and to be going off about day break, it may then be expected that there will be a great difficulty or impossibility of trailing to her seat; because, her morning retreat being on the top of the frozen dew, the scent is either dissolved or corrupted with it, or dissipated and exhaled. It is true, after such a night, the dogs will find work in every field, and often hunt in full cry, but it will be generally backward, and always in vain, her midnight ramblings (which were covered by the frost) being now open, fresh, and fragrant. If the said frost begins later in the morning, after Puss is seated, there is nothing to be done till that is gone off.

Finally, it is evident that the state of the atmosphere is the principal consideration of the sportsman in regard to scent. This subtle fluid, it is well known, is always wafted by the wind, and at times to very considerable distances. Thus the vulture is directed to carrion even for the distance of a league; and amongst quadrupeds, we see a similar circumstance obtain: in the season of love, the male is thus directed to the female; and hence the dog, the bull, the stallion apply their nostrils to the ambient air, and proceed accordingly.

SCIATICA or RHEUMATISM IN HORSES. See the article RHEUMATISM.

SCIRRHOUS. An induration of the glands, such as happens to the liver in many animals. It is reckoned one of the terminations of inflammation. Gibson defines it, a very hard swelling, sometimes entire, smooth, and without pain; sometimes divided into little knots and bundles, seated for the most part among the glands and kernels.

SCOURING or LOOSENESS. This complaint is properly an increased action of the peristaltic motion of the intestines, with a greater secretion of a watery fluid within the intestines; or, otherwise, a want of a proper absorption of the fluid part of the intestinal contents; whereby there follows a frequent evacuation of the dung in a very liquid form. It is distinguished from dysentery by the purging being complete from the very first; by its being more copious, having all the *feces* in solution without a glairy mucous matter, erroneously considered as the fat of the body; and, also, by being seldom accompanied with fever, or any great affection of the general health, unless it be long continued. Some horses are very liable to purging on every exertion, and such are termed, by grooms, *washy*, having usually narrow chests and lank bellies, by which the intestines have not sufficient room for their natural processes, but are pressed on, and thus forced to a hasty expulsion of the unassimilated contents.

Diarrhœa may arise from mechanical pressure, resulting from the form; or from a constitutional debility in the intestines themselves, dependant on the causes above-mentioned. A weakened state of the bowels, inclining to this affection, is often brought on by drastic purges likewise. These may be all considered as constitutional causes, and such as are liable to a frequent recurrence; but beside these, there arises a more active and serious affection, dependant on some morbid change taking place in the secretions of the stomach and bowels, whereby those secretions become a source of irritation to the organs themselves. The bile very commonly takes on such a change, and there is reason to believe that this is a fruitful source of diarrhœa. The food itself likewise becomes, at times, improperly assimilated, and enters into new combinations with the gastric juice, whereby an acrid matter is formed: this matter has been supposed to be an acid, and hence absorbent earths have been much used in this complaint.

Horses moving from hay to grass, or even from grass to hay, become affected with looseness; for the stomach and bowels prove unequal to the office of assimilating a new food at once, and hence they are irritated to an early expulsion of their contents, as a matter foreign and incapable of perfect assimilation.

Diarrhœa may be symptomatic, or the effect of some other complaint, in which case it ought not to be too hastily checked. It is frequently occasioned by the sudden application of cold, whereby the exhalent arteries of the skin becoming checked, more fluid is necessarily thrown on the intestines: and which operates not only by increasing their quantity, but likewise by the addition of something foreign, and hence irritating, to them. In such case, the restoration of the healthy action of the skin is necessary to a cure; and as the balance of power has been in favour of the intestines, it would be desirable now to turn it in favour of the skin, by making use of the few sudorifics we know of, as sp. Mind., warm clothing, &c. &c.; and by avoiding the use of active astringents. It may, however, be remarked, that horses are not much subject to symptomatic purging, or looseness; and therefore there is less danger of checking such affections in them than in the human subject.

It is seldom dangerous, unless very violent, or long continued; or unless, by improper treatment, it should inflame the inner surface of the intestines, and thereby degenerate into dysentery or enteritis.

The Treatment. It is so very seldom, as before observed, that this complaint is critical or purely symptomatic, that it but rarely requires aperients to commence the cure with; therefore mild astringents, in general, may be at once proceeded on. The longer the complaint continues, the farther it proceeds along the alimentary track, so that, at the last, the cœcum and rectum become equally affected, and then a distressing tenesmus prevails. This circumstance is not sufficiently attended to in the cure of diarrhœa; for in these cases it will be often in vain to give astringents by the mouth, which become so changed in the long alimentary track, as to reach these latter bowels almost inert; but in such instances, astringent injections will frequently effect all we wish. Commence, however, the cure of the general cases of diarrhœa by giving the following drink once or twice a-day, according to the violence of the complaint:—

Prepared opium, half a dram;
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Powdered catechu, two drams;
Prepared chalk, two ounces;
Starch, boiled thin, a pint.

Mix.

In very obstinate looseness, half a dram of alum may be added, and the quantity of opium doubled; and in such case, and also whenever the affection has been long continued, once or twice a-day give the following clyster:—

Boil six poppy heads in four quarts of water to two, add to the liquor

Prepared chalk, two ounces;
Boiled starch, two quarts.

Mix.

To this also, if necessary, alum may be added; and should the horse be weak, boiled starch, or arrow root, or boiled bean meal, may be horned down the throat frequently; give no cold water to drink, but, instead, give thin gruel or rice water, chilled. Clothe warmly, encourage a warm temperature also, and carefully avoid exposure to sudden currents of cold air. To the more intimately understanding of this complaint, under its several varieties, see the subject of Dysentery.

For the cure of diarrhœa, when brought on by superpurgation, Mr. Bracey Clark recommends

Sulphat of soda (Glauber's salt) two ounces;

Sulphat of magnesia (Epsom salt) one ounce;

Muriat of soda (common salt) ten grains;

Sulphat of iron (green vitriol) two grains.

Mix in warm water and give, repeating it if necessary.—*Blaine.*

SCRATCHES. A distemper in horses, of several kinds, distinguished by various names, viz. crepances, rat-tails, mules, kibes, pains, &c. being no other than the scratches, which are certain dry scabs, chops, or rifts, that occur between the heel and pastern joints, and do many times go above the pastern, to the very hoof of the hinder-legs, and sometimes are upon all four legs, though this is not very common. Scratches in the heels have so much affinity with the grease, and are so often concomitants of that distemper, that the method of treating them may be selected chiefly from what has been said under the article grease.

SCUT. The tail of a hare or rabbit.

SEAMS. A term formerly in use to signify the re-union of divided parts in the hoof of a horse, as a cured sandcrack; or the cleft at the junction of a false

quarter, with the uninjured part of the foot.

SEA FISHING. There are four ways of sea fishing in use, in some parts of Scotland, and which are worthy of notice from their peculiarity.

First, with leesters, a kind of four-pronged fork, with the prongs turned rather to one side, having a shaft twenty or twenty-five feet long. These they run along the sand on their edge, or throw them when they see any fish, and in this manner destroy great quantities. Some are very dexterous, and will, upon horse-back, throw a leester, and kill at a long distance. This is also called shawling, being usually practised when the tide is nearly expended, and the waters get shallow.

The second mode, termed heaving or hauling, is by standing in the stream, either at the flowing or ebbing of the tide, with a net fixed to a frame, consisting of a beam twelve or fourteen feet long, having three small sticks or rings, fixed into it in the middle, and one at each end; to these the net is fixed by a small line. This frame is opposed to the current, so that whenever a fish strikes against the net, they, by means of the middle ring, haul up the mouth of the net above the surface; and the fish which was caught in the bag of the net, is killed with an instrument kept for that purpose. A dozen or twenty men, will sometimes stand abreast, in strong running water, for three or four hours together. Such a company is called a *mell*.

Thirdly, pock-net fishing. This is performed by fixing stakes in the sand, in such places as become dry at low water. These stakes are driven forty inches separate, across the tide way, and about three feet high; between every two of these stakes, is placed a sack of net-work (called a *pock-net*), and tied by a rope to its top, and the bottom secured by a hook or ring of twisted willow, slipt on to the stake, where it is moveable; the meshes of these nets, which are about three feet wide both ways, are large, so that the fish, moving rapidly with the stream, run their heads into these meshes, and are unable to disengage themselves: when the tide is spent, the fish are taken out. Five of these pocks are termed a clout, and ten clouts are the extent allowed to each fisherman, who has only one share in the fishery. The distances are also regulated, so that the nets of one must not be set within a certain limit allowed to another.

Fourthly, raise-net fishing. This is by far the most profitable, yielding a considerable rent. The name is derived from the lower part of the net, rising and floating upon the water with the flowing tide, and setting down with the ebb. This has likewise the appellation of lake fishing, from the nets being always placed in lakes, or hollow parts of the tide-way, and never, either in the channel, or on the plain sand. The staves are mostly twelve feet long, driven deep into the sand, and in a row across a lake or hollow, at six feet distance, a strong rope is passed along, and fastened to the head of each, to this is joined a net, about ten feet deep, tied also at the bottom with a rope, but not fastened below to the staves, the lower part of course floats, as the tide rises, but when it begins to turn, the net is pushed to the bottom by the returning stream, and which prevents any fish getting down the channel, when the tide is spent. The fisherman or owner comes, every twelve hours, to see what are caught. If the hollow does not ebb quite dry, they use a drag net, to sweep out the fish, and large quantities of salmon, sea trout, herrings, cod, flounders, and sometimes sturgeons, are thus taken.

SEA FOWL, MODE OF TAKING. In St. Kilda, the fowling parties generally consist of four persons of agility and skill. Each party must have at least one rope, about thirty fathoms long, made of a strong raw cow-hide, salted for the purpose, and cut circularly into three thongs of equal length; these thongs being closely twisted together, form a threefold cord, able to sustain a vast weight, and durable enough to last two generations; to prevent its receiving injury from the sharp edges of the rocks, it is covered with sheep-skins dressed in the same manner.

This rope is the most valuable piece of furniture a St. Kilda man can be possessed of; it makes the first article in the testament of a father; and if it fall to a daughter's share she is esteemed one of the best matches in the island.

By the help of these ropes, linked together in couples, each having the end of the cord fastened about his waist, they go down and ascend the most dreadful precipices. Mr. Macauley gives an instance of the dexterity of the inhabitants of St. Kilda, in their fowling, to which he was an eye-witness. One of them fixed himself on a craggy shelf, his companion descended about sixty feet below, and

having darted himself away from the face of a most frightful rock hanging over the ocean, began to play his gambols; he sung merrily, and laughed very heartily; at last, having afforded all the entertainment he could, he returned in triumph, full of his own merit, with a large string of birds about his neck, and a number of eggs in his bosom.

In the Isle of Egg, there are two incidents relating to the puffin. The one, that though sea fowl, they here lay and hatch, sometimes at a great distance from the shore, and near the tops of high hills. Their young, before they leave the nests, are as large as the dam, transparent with fat, and delicious to the taste of many. It is believed that the young puffins become so weighty with fat as to be incapable of taking wing, or quitting the nest: to remedy this, the old puffin is said to administer sorrel to extenuate, and render it fit for flying. At any rate, it is a known fact, that sorrel is, in this island, commonly found to grow near the puffin's nest.

SEAT. The position on horseback. A person once mounted, and sitting at his ease, free from every seeming constraint, with his body pliantly erect, his thighs and knees adhering closely to the skirts of the saddle, an easy freedom in his legs, and a personal motion corresponding with the action of the horse, is said to have a good seat. Those who are always changing their position, throwing about their arms, swinging their legs, looking every way but the right, with stirrups too long, too short, or probably one shorter than the other, are horsemen of a very different description, having a very bad seat, or rather no seat at all.

SEELING. A horse is said to seel, when, upon his eye-brows, there grow white hairs, mixed with those of his usual colour, about the breadth of a farthing, which is a sure mark of old age. A horse never seels till he is fourteen years old, and always before he is fifteen, or sixteen at farthest: the light sorrel and black seel sooner than others.

SEPTEMBER. The partridge shooting season commences on the first of this month. The courser also pursues the hare. Harriers go out at an early period of the morning. Fox-hounds commence cub hunting.

SETON. A cord or number of threads laid together, and drawn through the skin by the help of a needle of a proper shape. Mr. Clark gives the following in-

structions on the application and use of setons in the diseases of horses.

"Setons (says he) are of great use in carrying off matter from deep-seated abscesses in different parts of the body. They ought at all times to be used in preference to making deep incisions into the muscular parts; for these not only disfigure horses, but are afterwards very difficult to heal up, on account of the unfavourable situation of some of those tumours, and the horizontal position of the body, which in many cases will not allow of a depending opening to carry off the matter, as in tumours on the back, withers, and the upper part of the neck, immediately behind the ears, which are very common. Nor is the horizontal position of the body the only impediment; for the natural restlessness and impatience of a horse, renders it impracticable to fix proper bandages on these elevated parts; nor will the situation of them admit of proper dressings being fixed so as to remain for any length of time. Hence the openings made into such tumours are frequently left bare, and exposed to the cold air, &c. degenerate into very foul ulcers, and produce a very great deal of fungous flesh, which requires to be repeatedly cut away with the knife, as the strongest caustics that can be applied are not sufficient to retard its growth.

Setons are introduced by long, thin, flat, sharp-pointed needles, shaped like a dart at the point, and having, at the other extremity, an eye to receive the cord, which is to be left in the tumour. The size of the instrument may be determined by that of the tumour, and the thickness of the cord which is to follow it, and which at all times ought to be smaller than the perforation made by the point of the needle. Every veterinary surgeon should be possessed of a number of these needles of different sizes, that is, from six to fourteen or fifteen inches long, a little bended on the flat or under side."

Mr. Clark describes the following as the readiest method of applying setons in different cases.

"When matter is found to fluctuate in the tumour, the needle, armed with a cord at the other end, is to be introduced at the upper part of it, and the sharp point of the instrument directed to, and brought out at, the under or lowermost part of the tumour, including the whole length of it; or, if needful, through the sound muscular flesh on the under part, in order to procure a depending orifice

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for the matter to run freely off. The cord should be dipped in some digestive ointment, and then tied together at both ends with a thread, in order to prevent its slipping out; but if, from the length of the perforation, the cord should not admit of being tied together at the ends, a small button of wood, or some such substance, may be fixed at each end; only, from this circumstance, the cord will require, when shifted occasionally, to be drawn upwards and downwards; whereas, when the ends of it are tied together, it forms a circle, and may always be shifted downwards to the lower orifice; when the matter in the tumour appears to be wholly discharged, or dried up, and no thickness appearing but where the cord is, it may then be drawn out, and the orifices suffered to heal up.

When the needle for introducing the seton is to pass near to any large blood-vessels, or nerves, in order to prevent the chance of their being wounded, it may be concealed in a canula, open at both ends: and after an opening is made at the upper part of the tumour, sufficient to admit the needle, with its canula, it may then be directed, with safety, past the blood-vessels, &c. We may then push the needle forward through the canula to the opposite side of the tumour, and having only the common teguments to perforate, all danger will be at an end."

The importance of the seton in treating abscesses on the withers, &c. is shewn by Mr. Clark in the following way: "The common method (says he) of treating those large tumours which are seated on the upper part of the neck, immediately behind the ears, generally known by the name of the poll-evil, and also those which are seated on the withers, or upper parts of the shoulders, is exceedingly improper. They are either allowed to break of themselves, or are opened the whole length of the tumour on the upper part; in which situation, especially in the poll-evil, when the head is always kept in an erect position, the matter contained in the tumour cannot be discharged from it, but is retained in the bottom of the wound, and exposed to the external air, &c. Here it soon acquires a most corroding quality, and produces a large and sordid fistulous ulcer; a great quantity of fungous flesh is also produced, and this requires to be repeatedly extirpated with the knife, or other means; and hence the horse is greatly disfigured, the cure becomes both tedious and uncertain, and is seldom rad-

ical. In some cases, I have known the vertebrae of the neck affected by the sharpness of the confined matter, forming lodgments there, and, after great trouble and expence, the horses were obliged to be put to death at last."

Mr. Clark, no doubt with great truth, avers, that these tumours are easily and speedily cured by the use of setons, as above described; and that without any loss of substance, or even disfiguring of the parts. "Of a number of cases (says he) where this operation has succeeded with great expedition in curing these tumours, I shall only mention the following:—

About eight years ago, an Arabian horse, belonging to a gentleman in this place, had a large tumour seated a little on one side of the withers, or upper part of the shoulder; it was forwarded by applying emollient poultices; and, as soon as the matter was perceived to fluctuate in the tumour, a large seton needle, armed with a cord at the other end (as described above), was introduced at the upper part of the swelling, and brought out at the under or lowermost part of it; the matter was discharged at the lower orifice in a very short time, the tumour was by that means soon discussed, and in a few weeks it was entirely healed up, without any scar or blemish remaining, farther than a little baldness about the lower orifice, occasioned by the sharpness of the matter; but this likewise soon disappeared, and not the least trace of the disorder remained."

Another case is described by Mr. Clark as follows:—"A coach horse (belonging to a nobleman in the neighbourhood) had a large tumour a little behind the ears, on the neck, which, as formerly observed, is called the poll-evil; the tumour extended to both sides of the neck, and was divided in the middle by the mane; the tumour had been opened on one side, in a very superficial manner, by a farrier in the country, before the matter in it was sufficiently digested: after applying a few emollient poultices, in order to ripen it, a strong seton needle, as already described, was introduced at the upper part of it, almost close to the mane, and, after passing it through the bottom of the tumour, which was very deep, the needle was brought out through the sound muscular parts below the tumour, in order to procure a depending orifice for the matter to run freely off. The same operation was likewise performed on the opposite side,

beginning near the mane, and finished in the same manner. In a few weeks the cure was completed. The horse ran for several years in the same nobleman's carriage, without the smallest vestige of his former disorder."

The history of these cases tends, Mr. Clark thinks, to shew with what facility and expedition such tumours may be cured by the use of setons in preference to the common methods used, and even recommended by authors. This practice was, after opening these tumours by deep incisions, and pouring into them the most corrosive mixtures, made scalding hot, to employ a course of irritating applications, by which the poor animals were tortured for a considerable time; and, in the end, were so disfigured by the loss of substance as to have been generally rendered

unfit for any thing but the meanest drudgery.

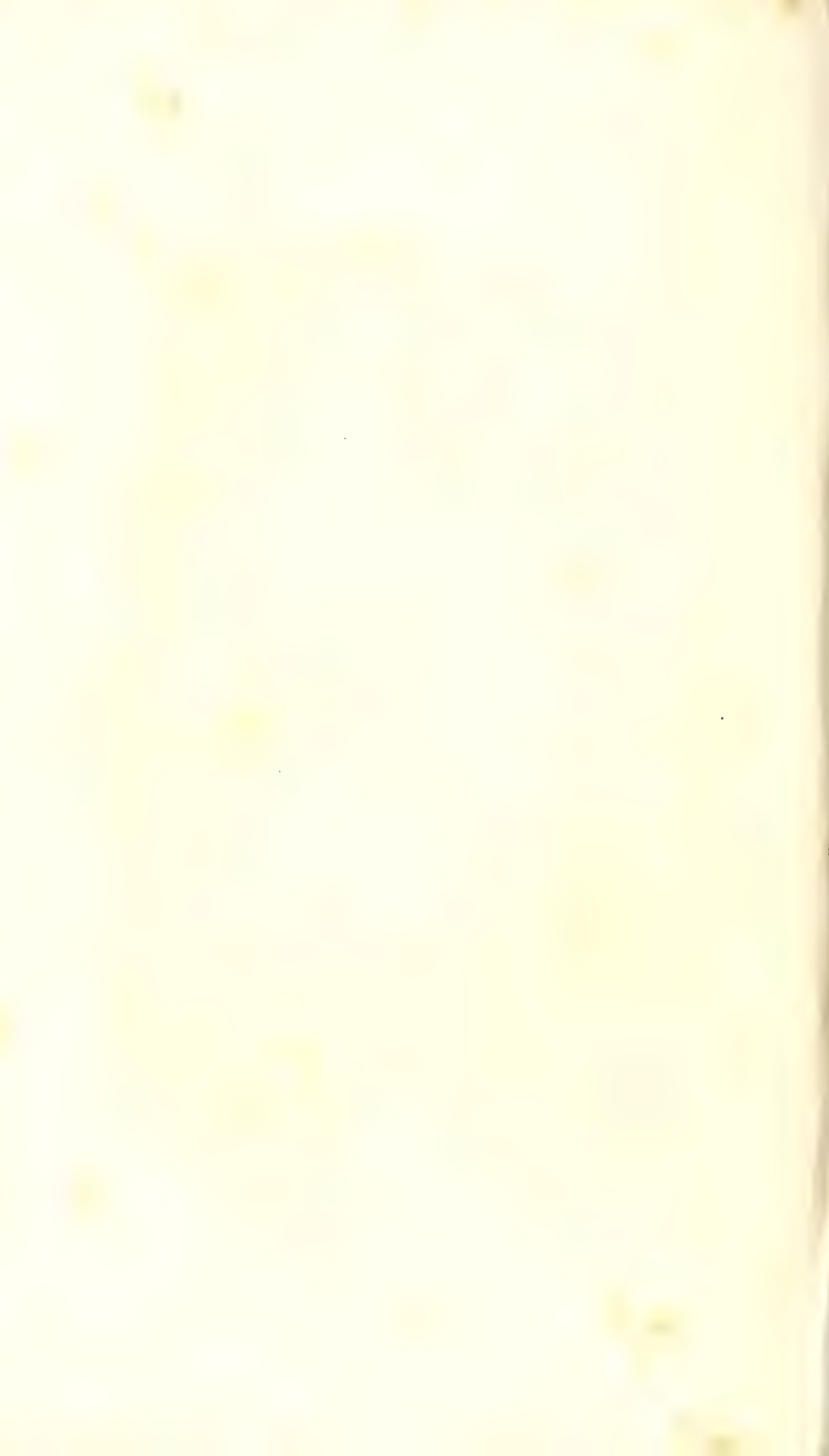
"Deep-seated abscesses (Mr. Clark observes) are cured in the same manner by the use of setons. After tracing their sinuses or cavities with a long leaden probe (which will yield easily, without forcing its way through the cellular membrane, or taking a direction between the interstices of the muscles), the needle, armed with a cord, should follow the direction of the sinews to the most depending part; and in case there should be two or more sinuses, which sometimes happens, each of them should be treated in the same manner, in order to obtain a depending orifice for a free discharge of the matter, and which, being once procured, this method will completely cure the disease."

SETTER. The setter is the handsomest and perhaps the most generous of the canine race; but by what peculiar cross he originated is not well known; and all conjectures on this head, though very interesting to the sportsman, are too much involved in uncertainty to be depended on. Some are of opinion, that the setter was produced by crossing the talbot, or blood-hound, with the small land spaniel, or springer; and certainly the appearance of some of these animals seems to warrant such an idea; while others, equally good, or superior, appear altogether at variance with such a conjecture. Even if we admit this position, we are still unable to trace the primeval stock precisely, as the springer exhibits an almost endless variety, while its origin appears to be buried in oblivion.

It may be safely asserted, that the setter, or large land spaniel, was known in this country long before the introduction of the present more fashionable dog, known by the appellation of the Spanish pointer. The large land spaniel, or English setter, is not more distinguished for the beauty of his form, than for his vivacity, unwearied perseverance, and sagacity, as well as for his generous and ardent attachment to man. His body is formed much like that of the greyhound, his countenance is very expressive; he has large pendent ears, a long, brushy, handsome tail; and he is covered all over with long wavy hair; his speed is very great; and, as his feet are small, and much protected by hair, he has thus a decided advantage over his more delicate rival, and will run with indifference on hard ground, whether produced by frost or otherwise, when the Spanish pointer cannot be induced to move from the sportsman's heels. Also, while the latter, from the tenderness of his skin, manifests the utmost reluctance to enter a thicket, the setter will rush through the brambles with dauntless impetuosity.

At the commencement of the shooting season, when the weather is excessively hot, the setter is supposed to suffer more from thirst than the pointer; this is undoubtedly the case, and arises from the long warm coat of the former; and on the grouse mountains, *in a*





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very dry season, exposes this animal to great inconvenience; not that the smooth pointer is by any means exempt from that excessive thirst, which is uniformly produced by great exertion under a burning sun; but, as he is more thinly clad, and generally moves slower, so is he, consequently, less in want of water. But, after all, it does not often happen, that water is so very scarce on the moors; on the contrary, those who visit the grouse mountains, may generally calculate on walking with wet feet; and the weather must be much more than ordinarily dry, when the dogs suffer much inconvenience from thirst.

Another supposition which generally obtains belief, respecting the comparative merits of these two animals, is neither so reasonably nor so justly founded, namely, that the olfactory organs of the setter are inferior to those of his foreign rival. On this subject, it seems necessary, in the first place, to observe, that the *best nosed* pointers are those which still retain much of the blood of the old English talbot or blood-hound (as no doubt, we think, can exist, that the Spanish pointer, when first brought to this country, was crossed with the talbot, or something, at least, approaching the talbot); and almost all those pointers of the present day, which have the best noses, are found to approximate, in form and appearance, the old English blood-hound, whose olfactory organs were, no doubt, superior to those of any other race of dogs which was ever known in these islands. The old English setter, which many years ago existed perhaps in the greatest possible perfection, has since undergone various crosses, which have not only injured the beauty of his appearance, but diminished that exquisite sense of smell, which is so essential to the delightful recreation of shooting. Dogs, *called setters*, are now to be met with of all forms, miserably deficient in the most prominent quality, *setting*, and generally very inferior to the modern pointer in every respect. Not one in a hundred of these mongrels is worth the notice of the sportsman; many of them, it is utterly impossible to *break* or train, and even of those which are in some measure forced into subordination, very few become sufficiently steady to be fully depended on, or to render their services satisfactory. It is true, sometimes one is met with of approved worth, but instances of this sort are not very numerous.

A narrow headed setter, like a narrow headed hound, can never possess an exquisite sense of smell.

We are told that the sportsmen of Ireland are more partial to setters than pointers; and, for aught we know to the contrary, they may be better calculated for that country. A similar notion prevails in the Highlands of Scotland (which afford the best shooting in the world); and few pointers are to be met with in these parts, at least in the hands of the natives. What we saw in an excursion through this mountainous country in August, 1824, were ill bred worthless animals, though we are fully convinced from experience, that a well-bred pointer is as superior to the setter in the Highlands of Scotland, as in the inclosures, or upon the grouse mountains of England; nor have we the least doubt, that if a good breed of pointers were intro-

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duced into the sister kingdom, that the Irish sportsmen would prefer it to their favourite setter. We have seen several Irish setters (chiefly red) which were certainly good dogs.

It is but of late years that the pointer has attained that degree of excellence, which raises him above his long coated competitor. In the time of Somerville, pointers were but little regarded, as he has not even noticed them; but he has the following beautiful apostrophe to the setter:—

When autumn smiles, all beauteous in decay,
And paints each chequer'd grove with various hues,
My setter ranges in the new shorn fields,
His nose in air erect; from ridge to ridge,
Panting, he bounds, his quarter'd ground divides
In equal intervals, nor careless leaves
One inch untry'd. At length the tainted gales
His nostrils wide inhale; quick joy elates
His beating heart, which, aw'd by discipline
Severe, he dares not own, but cautious creeps,
Low-cowering, step by step, at last attains
His proper distance; there he stops at once,
And points with his instructive nose upon
The trembling prey. On wings of wind upborne,
The floating net unfolded lies; then drops,
And the poor fluttering captives rise in vain.

It is hastily supposed by some, that the dog now under consideration, is naturally disposed to crouch or drop on his belly when setting or pointing his game; but this is merely the effect of education: the pointer may be taught to crouch as well, if not better, than the setter; and, on the contrary, the setter may be taught to *stand* precisely in the same manner as the pointer. This mistaken notion has been propagated by the consummate ignorance of those who have assumed a knowledge of the subject, and given their wretchedly contemptible excogitations to the world through the medium of the press. Thus, in the Sportsman's Cabinet, we find the following ridiculous nonsense:

“Although the setting dog is in general used merely for the purpose of taking partridges with the draw net, yet they are sometimes brought into occasional use with the gun, and are equally applicable with that appropriation; except in turnips, French wheat, standing clover, ling, furze, or other cover, where their sudden drop or point may not be so readily observed.”

Daniel, in the Rural Sports, is equally eloquent, and equally ignorant, on the subject; and as a sort of climax to his own stupidity, after admitting that he was never on the grouse mountains, gives the portrait of his favourite setter *Beau* “*pointing the black cock!*”

The setter is capable of enduring much fatigue, a striking instance of which occurred with one of these animals, the property of the late celebrated Mr. Elwes; which followed its master to London, a distance of sixty miles, hunting the fields adjoining the road all the way as they passed along.

The late Dr. Hugh Smith related the following tale of a setter:—

As the Doctor was travelling from Midhurst into Hampshire, the dogs, as usual in country places, ran out barking as he was passing through the village, and amongst them he observed a little ugly cur that was particularly eager to ingratiate himself with a setter bitch that accompanied the Doctor: whilst stopping to water his horse, he remarked how amorous the cur continued, and how courteous the setter seemed to her admirer.—Provoked to see a creature of Dido's high blood so obsequious to such mean addresses, the Doctor drew one of his pistols and shot the cur; he then had the bitch carried on horseback for several miles. From that day, however, she lost her appetite, ate little or nothing, had no inclination to go abroad with her master, or attend to his call; but seemed to pine like a creature in love, and express sensible concern for the loss of her gallant. Partridge season came, but Dido had no nose. Some time after she was put to a setter of great excellence, which had, with great difficulty, been procured for the purpose; yet not a puppy did Dido bring forth, but what was the picture and colour of the cur that the Doctor had, many months before, destroyed; and in many subsequent litters Dido never produced a whelp that was not exactly similar to the unfortunate cur already mentioned.

SETTER. In the game of hazard, is the person who sets the caster; or, in other words, the player, who makes stakes with the person holding the box and dice, who, if he throws in, draws the money; on the contrary, if he throws out, the setter is the winner.

SETTER-TO. A term in cocking. The setter-to is the person who receives the cock (going to fight) from the feeder, and hands him upon the sod during the battle, according to the laws of the pit, and the conditions of the match. See **COCKING**.

SHAD. Pennant says the shad arrives in the Thames the latter end of May, or early in June, and is a very coarse fish; it sometimes grows to the weight of eight pounds, but the usual size is from four to five. This is the fish which Du Hamel describes as the true *alose* of the French; but the Thames fishermen have another they call *allis*, much less than the former, with a row of spots from the gills along the sides, just beneath the back, more or less in number: this the French call *le feinte*. I suspect, says Mr. P. that the name *allis* is misapplied to this species, and that it ought to be applied to the greater common shad, being an evident corruption from the French name *alose*: is the same with that of the Severn, but is rarely taken here; but neither of them is admitted to good tables.

In Great Britain the Severn affords this fish in higher perfection than any other river. It first appears there in May, but in very warm seasons in April; for its arrival, sooner or latter, depends much on the temper of the air. It continues in the river about two months.

The Severn shad is esteemed a very delicate fish about the time of its first appearance, especially in that part of the river that flows by Gloucester, where they are taken in nets, and usually sell dearer than salmon: some are sent to London, where the fishmongers distinguish them from those of the Thames by the French name of *alose*. Whether shads spawn in the Severn and the Wye is not determined,

for their fry has not yet been ascertained. The old fish come from the sea into the river in full roe. During the months of July and August, multitudes of bleak frequent the river near Gloucester; some of them as big as a small herring, and these the fishermen erroneously suspect to be the fry of the shad. Numbers of these are taken near Gloucester in those months only, but none of the emaciated shad are ever caught in their return.

The shad of the Thames does not frequent that river till the latter end of May or beginning of June, and is deemed a very insipid coarse fish. The Severn shad is sometimes, though rarely, caught in the Thames, and called *allis* (no doubt *alose*, the French name) by the fishermen in that river. About the same time, and rather earlier, the variety, called near Gloucester the *twaite*, makes its appearance, and is taken in great numbers in the Severn, and is held in as great disrepute as the shad of the Thames.

The differences between each variety are as follows:

The true shad weighs sometimes eight pounds, but their general size is from four to five.

The *twaite* on the contrary weighs from half a pound to two pounds, which it never exceeds.

The *twaite* differs from a small shad only in having one or more round black spots on the sides; if only one, it is always near the gills, but commonly there are three or four, placed one under the other.

The other particulars agree in each so exactly, that the same description will serve for both. The head slopes down considerably from the back, which at the beginning is very convex, and rather sharp: the body from thence grows gradually less to the tail. The under jaw is rather longer than the upper; the teeth very minute. The dorsal fin is placed very near the centre, is small, and the middle rays are the longest: the pectoral and ventral fins are small; the tail vastly forked: the belly extremely sharp, and most strongly serrated. The back is of a dusky blue; above the gills begins a line of dark spots, which mark the upper part of the back on each side; the number of these spots is uncertain in different fish, from four to ten.

In the Elements of Natural History, this fish is described in the following manner:—In May and June the shad ascends the rivers, and deposits its spawn in rapid streams. In autumn it returns. It is from two to three feet long, lives on worms and insects; it is preyed upon by the siluri, pikes, and perches. It is detested by the Russians and the inhabitants of the Wolga, although it is much relished elsewhere, and in India its ova are as highly esteemed, as caviar is by the Russians. It is covered with large scales which easily come off.

SHANK OF A HORSE. That part of the fore-leg which is between the knee and the fetlock or pastern joint. The larger and broader the shank is the better. It is known to be so, by the back sinew being at a distance from the bone, or well separated from it, and having no kind of swelling betwixt it and the bone, which may cause the leg to appear round.

SHARK. A brown horse, foaled in 1771, bred by, and the property of, Charles Pigott, Esq. Shark was got by Marsk; his dam by Snap; grandam, (Warwickshire Wag's dam) by Marlborough, out of a natural barb mare.—Shark was his dam's first produce.

At Newmarket first October meeting, 1774, Shark, 8st. beat Mr. Greville's Post-

master, same age, 8st. 8lb. Ditch-in, 500gs:—5 to 4 on Postmaster. On Monday, in the second October meeting, he received forfeit from Mr. Blake's Prior, 8st. 7lb. each, Ditch-in, 200gs. h. ft. And on Tuesday, at 8st. 2lb. he beat the Duke of Ancaster's Jacinth, 8st. Ditch-in, 300gs.—3 to 1 on Shark.

At Newmarket first spring meeting, 1775, Shark won a sweepstakes of 200gs. each, h. ft. (10 subscribers) for colts, 8st. fillies, 7st. 11lb.; Ditch-in, beating Lord Grosvenor's Laurel, Lord Grosvenor's Glimpse, and Lord Bolingbroke's colt, by Syphon, dam by young Snip:—6 to 4 on Laurel, and 2 to 1 against Shark. On Saturday, he won a sweepstakes of 100gs. each, and a hogshead of claret each, (the owner of the second was entitled to two hogsheads); colts, 8st. 7lb.; fillies, 8st. 4lb.; B. C. beating Lord Grosvenor's Laurel, Mr. Brand's Mayfly, Mr. Blake's St. George, and Mr. O'Kelly's Juno, by Marsk:—Mr. Greville's Postmaster, Mr. Vernon's Plunder; and six others paid. On Monday, in the second spring meeting, he received forfeit from Mr. Douglas's Lady Squander, 8st. each, Ditch-in, 300gs. h. ft. On Tuesday, he walked over B. C. for the Clermont cup, value 120gs. and 100gs.; (2 subscribers). On Friday, he walked over B. C. for a subscription of 25gs. each, (13 subscribers) for four-year olds, 8st. 7lb. And on Monday after the meeting, he beat Lord Rockingham's Cincinnatus, aged, 8st. 7lb. each, across the flat, 500gs:—5 to 2 on Shark. At Newmarket, September 25, he beat Lord Clermont's Johnny, 6 years old, 8st. 7lb. each, B. C. 1000gs:—6 to 5 on Shark; Johnny fell in coming up the Ditch-hill.

At Newmarket first spring meeting, 1776, Shark beat Mr. Greville's Postmaster, 8st. each, R. M. 1000gs:—2 to 1 on Shark. On Monday, in the second spring meeting, at 8st. 7lb.; he won a sweepstakes of 1000gs. each, B. C. beating Lord Grosvenor's Laurel, 8st.; and Mr. Greville's Postmaster, 8st.—6 to 5 against Shark, and 5 to 4 against Laurel. On Wednesday, at 8st. 13lb. he beat Lord Rockingham's Rake, aged, 8st. 3lb. across the flat, 1000gs:—5 to 2 on Shark. On Saturday after the meeting, he beat Lord Abingdon's Leviathan, 10st. each, B. C. 500gs:—5 to 4 on Shark. In the July meeting, at 8st. 7lb. he received forfeit from Lord Abingdon's Critic, 8st. 2lb.; B. C. 1000gs. h. ft. On Monday, in the first October meeting, he received forfeit

from Lord Clermont's Johnny, aged, 8st. each, across the flat, 500gs. h. ft. On Friday, at 8st. 7lb. he beat Lord Clermont's Fireaway, 6 years old, 7st. 4½lb.; R. M. 300gs:—7 to 4 on Fireaway. In the second October meeting, he walked over B. C. for the 140gs. for six-years olds and aged horses, 8st. 7lb. all others, 8st.

At Newmarket first spring meeting, (Monday) Shark received forfeit from Lord Abingdon's Leviathan, 9st. each, B. C. 500gs. On Saturday, at 8st. 7lb. he beat the same Leviathan, 8st. B. C. 1000gs:—5 to 2 on Shark. In the July meeting, Shark, 8st. 7lb. beat Sir C. Bumbury's Hephestion, 7st. 11lb.; Ditch-in, 500gs:—7 to 4 on Shark. On Thursday, he won the subscription plate of 92gs. for four-year olds, 7st. 13lb.; five-year olds, 8st. 9lb.; six-year olds, 9st.; and aged, 9st. 2lb.; Ditch-in; beating Mr. Compton's Waser, aged; Lord Clermont's Masquerade, 6 years old; the Duke of Grafton's Magnet, aged; Lord Ossory's Planet, 5 years old; and five others:—5 to 2 on Shark, and 4 to 1 against Masquerade. In the first October meeting, he received 100gs. compromise from Lord Grosvenor's Mambrino, aged, 10st. each, B. C. for the Whip and 200gs. each.—Lord Grosvenor kept the whip.

At Newmarket first spring meeting, 1778, Shark, 8st. 7lb. beat Mr. Dawes' Nutcracker, 3 years old, 7st. R. M. 200gs. 7 to 4 on Shark. And in the second spring meeting, he won the Whip and 200gs. each, 10st. B. C. beating Lord Ossory's Dorimant, 6 years old:—Lord Abingdon's Pretender, aged, paid.

Shark had 36 engagements; he started 29 times, out of which he won 19:—He received six forfeits, and paid four forfeits and a compromise.—He was beat as follows: in the first spring meeting, 1774, at 6st. 12lb. (the first time of his running) by Florizel, 5 years old, 9st. 7lb.; Ditch-in, 300gs; in the first October meeting, 1775, by Pretender, 8st. 7lb. each, B. C. 500gs.; May 6, 1776, at 8st. 7lb. by Masquerade, 7st. 13lb. R. M. 500gs; in the July Meeting, at 8st. 9lb. by Dorimant, 4 years old, 7st. 13lb. for the subscription plate of 89gs. Ditch-in; in the first October meeting, by Masquerade, 8st. 7lb. each, the first half of R. M. 200gs; on Monday, after the second spring meeting, 1777, at 8st. 7lb. by Lord March's Kouli Khan, 5 years old, a feather across the flat, 300gs.; in the first October meeting, (Monday) at 8st. 7lb. by Pretender, 7st. 11lb. B. C. 1000gs; on Wednes-

day, in the same meeting, at 8st. 12lb. by Ratcatcher, 4 years old, 7st. 7lb.; and Mistley, 4 years old, 7st. 7lb. for the 140gs. B. C.; in the second October Meeting, at 8st. 7lb. by Dorimant, 5 years old, 8st. for the 140gs. B. C.; and on Monday, May 25, 1778, at 8st. 7lb. by Dictator, 5 years old, 7st. 10lb. B. C. 500gs. which was the last time of his running:—forfeits, in the second October Meeting, 1775, in a sweepstakes of 100gs. each, (5 subscribers) 8st. 7lb. Ditch-in, walked over for by Critic; in the same meeting, at 8st. 7lb. to Johnny, 6 years old, 8st. 2lb. R. M. 300gs.; in the second October meeting, 1777, at 8st. 7lb. to Leviathan, 7st. 7lb. B. C. 200gs.; and June 8, 1778, at 8st. 7lb. paid 80gs. compromise to Dictator, 8st. 1lb. across the flat, 300gs. h. ft. which was his last engagement, except his being named for the Oxford cup, won by Dorimont in 1778. He never raced but at Newmarket.

Shark won, besides the Clermont cup, value 120gs, eleven hogsheds of claret, and the whip; the sum of 16,057 guineas, in plates, sweepstakes, matches, and forfeits, which was more money than any horse ever won before.—he lost and paid 3990 guineas:—Total of winning, including the value of the Clermont cup, 12,187 guineas.

Shark was a stallion in 1779, at Chesterton-hall, near Stilton, Huntingdonshire, at 25gs. and 10s. 6d.; in 1780, at Alwalton-lodge, near Stilton, at 20gs. and 10s. 6d.; in 1781, at the same place, at 10gs. and 10s. 6d.; in 1782, at Mr. Blake's, at Beddington, near Croyden, Surrey, at 10gs. and 10s. 6d.; in 1783, at the same place, at 15gs. and 10s. 6d.; and in 1784, at 10gs and 10s. 6d.; in 1785, at Mr. Glenton's, Boroughbridge, Yorkshire, at 10gs. and 10s. 6d.; and afterwards at 5gs. and 5s. He was sire of the Duke of Devonshire's Adder, Asp, and Despair; of Mr. Blake's Andromeda, Mr. Panton's Expectation and Wasp, Lord Foley's Alligator, Mr. Hutchinson's Pitch, Mr. Eccles's Peggy Flirt, Mr. Coates's Sir John Falstaff, Mr. Haynes's Isabella, Mr. Savage's (of Ireland) Amphibious, Lord Courtenay's Daisycutter, and Sir Thomas Gascoigne's Violet, that bred Goldenlocks, Groaner, Symmetry, Slapbang, Lenox, Tooee, Theophania, &c.

Shark was about 16 hands high.

SHEDDING OF THE HAIR.—See Moulting, page 552.

SHELL-TOOTHED. An epithet applied to a horse that, from five years to old age, naturally, and without any artifice, bears the mark in all his fore-teeth; inso-

much, that, at twelve or fifteen, he appears with the mark of a horse that is not yet six. For in the nippers of other horses the mark disappears towards the sixth year, in consequence of the wearing of the tooth. About the same age it is half worn out in the middling teeth, and towards the eighth year it disappears in the corner teeth; but after a shell-toothed horse has marked, his marks still remain in the nippers, the middling, and the corner teeth. The reason is, that, having harder teeth than other horses, his teeth do not wear, nor lose the black spot.

Amongst the foreign horses, we find a great many shell-toothed horses, and generally the mares are more apt to be so than the horses.

SHOEING. Natural defence.—When time was young, when the earth was in a state of nature, and turnpike-roads as yet were not known, the horse needed not the aid of the *shoeing smith*, whom I have termed *an artist*; for the Divine artist had taken care to give his feet such a *natural defence* as it pleased him to bestow; and who among us is weak enough to suppose, or so bold as to assert, that this wisdom is not sufficient to the purpose, in such a state! But, to prevent all supposition and cavil on this matter, let us only look around us, and appeal to our senses: do we not every day see horses, mares, and colts, running about on all sorts of ground, unshod, yet uninjured in their feet, for they do not always take to the hardest ground when at large?

In many parts of the world to this very day, even on the most stoney ground, horses are accustomed to carry their riders unshod; and in this kingdom, I have known several horses that were rode for a considerable time unshod, on the turnpike-roads about London, without any injury being thereby done to their feet; though, in these latter times, this practice is got into disuse, as the roads are become harder, and the horse's services are more urgently required. Moreover, I durst believe, many of our horses might travel their whole life-time, unshod, on any road, if the crust of their feet were constantly rasped round and short at the toe; seeing that, hereby, all feet exposed to contact with hard substances, are thus induced to become more obdurate (or inflexible), provided, at the same time, that the sole be never pared. Whilst some feet, by their extraordinary fine form, depth, and strength, are enabled to resist such roads with impunity, and to support

great weights without breaking. We shall come, presently, to show how these qualities may be impaired, or entirely lost, by bad management.

At this place it is worth our while to stop and inquire whence the custom of shoeing horses arose, and how it should prevail in one part of the world and not in another. In Asia, the original country of the horse kind, they do not shoe their horses at all, because the hoof acquires a tough and firm texture from the dryness of the soil, and really stands in no need of any artificial defence. Further, to aid nature in the re-production of horn of the most desirable texture and hardness, every horseman carries a rasp to shorten the toe, and take off the raggedness of the quarters of the foot, which would otherwise grow too luxuriant, and the crust would most certainly split. On the other hand, horses reared in the Netherlands, for example, or in our Lincolnshire, on wet or moist lands, and a humid atmosphere, will, naturally, have a wider and weaker foot, the consequence of its being replete with cartilage,* and therefore capable of contraction by heat, and of expansion by being exposed to damp or wet.

Iron defence.—Seeing the great difference that existed in the texture, or hardness of the horn in horses' feet, man in his wisdom—as the surface of the earth changed, found himself obliged to add another defence, besides the natural one, to preserve the crust of such feet as were weak, and therefore not so well able to support them against injuries from hard substances, as stones, roads, &c. This was the “iron defence” we now term the shoe. From the good derived out of this practice, so tried and proved on certain kinds of feet, though, it must be allowed, but a partial good, after all, it is no wonder that the custom of putting shoes on all kinds of feet became general in some countries.

Our ancestors, the original shoers, proposed, in their first efforts, nothing more, it is presumed, than to preserve the crust or wall of the hoof from breaking away, and thought themselves happy that they had skill enough to accomplish so much. The moderns, also, are wisely content with this lowest quantity of the artificial defence, in regard to horse racing, whereby pace, that constant desideratum, was also bettered. But, in process of time, the fertility of invention, and the vanity of mankind, brought forth a variety of methods, almost all of which are productive of

lameness; and I am thoroughly convinced, from close observation and long experience, that nineteen lame horses out of every twenty, in this kingdom, are lame of the artist; which, again, is owing to the form of the shoe, to his ignorance of the designs of nature, and consequent improper treatment of the foot, every part whereof was designed to answer some useful purpose, though it thus appears he does not happen to know it.

But, waving all that these modern artists know, or do not know, I suppose it will be universally assented to, that whatever method of shoeing approaches nearest to the law or design of nature, such is likely to be the most perfect method; and, as the feet of different horses differ from each other, so, if we would arrive at any perfection in this art, the human reason must be employed in discovering wherein this difference consists, and in ascertaining its degree, that each may be treated according to its nature. And yet, with regard to each and all, some general rules may still be followed.

The foot, its component parts.—For the sake of those who may be unacquainted with horses' feet, and for their instruction, I shall now describe such parts of the foot as offer themselves to our view, and come under our cognizance, as the immediate and principal objects of our care, when the animal is intended to be shod. These are, the outer sole, the crust, which, like a wall, surrounds it,* the frog, and bars on each side; and the spongy skin-like substance, which covers the hinder and cellular part of the foot, and constitutes the heel of the horse. Of each of these, I will speak in detail shortly.

With respect to the treatment of these several parts, Mr. Lafosse (to whom the world is indebted for many ingenious observations) has already laid down some excellent rules. And, although, I dare to say, that every man who has tried his “method of shoeing,” is convinced of its impropriety—I mean as a general method, yet some useful hints may be gathered from his doctrine, fitting for our present purpose, whilst the good and evil

* This is the earliest mention we can find of the crust or hoof proper, being denominated the wall of the foot, a term which has now become general among us. It was about the period when Osmer wrote, also, called “the coffin,” whence the principal bone within the hoof acquired the name of *coffin bone*.

of his manner of shoe-making shall be spoken of hereafter. He says, the sole should never be pared; and the reason he assigns, is both obvious and just; namely, that the sole, when not pared, acquires a greater degree of firmness and obduracy, whereby it is better enabled to withstand injuries from extraneous bodies, such as glass, nails, flints, stones, &c.

The sensible sole is a very important part of the foot, and the many injuries it sustains, as well as its inability to sustain them with impunity, demands that we should bestow some attention upon it, in this place, though concealed from our sight by the outer sole, that forms the concavity of the foot. This latter is evidently a contrivance of the all-wise Creator, to defend by its obduracy, the inner or sensible sole, which lies immediately within the other, or insensible sole, between that and the bone of the foot, which has acquired, latterly, the term coffin-bone. This inner sole, being no other than the termination of one of the flexor tendons of the leg, which is continued to the bottom of the foot, and, overspreading the bone thereof, takes its oval shape by pressure, as it were.

This tendinous expansion, or sensible sole, when the outer sole is pared away, and the animal put to strong exercise, is, for want of its natural defence, exposed to excessive pain, and is consequently liable to violent inflammation. From this cause alone, the poor creature often limps away from the forge; and many a horse has been rendered lame for ever, under a variety of names, according as the effect thereof may make its appearance on this or that part of the sole, if it do not make its way to the coronet also. If it be asked by any shoeing-smith, what becomes of the sole when not pared away by him? I answer—it dries up, separates, and scales away, acquiring, hereby, the character of being a flakey sole; which kind of sole requires to be deprived of its flakes only, when these are redundant: health prevails when these flakes appear to have formed.

The frog.—The same Mr. Lafosse has said, “the frog should never be pared.” His reason is, that the frog, being united to that tendon of the leg just mentioned, as one that is continued down to the bottom of the foot, is itself an elastic body, is placed there as a proper point of support, and serves as a basis to relieve this tendon at each step or motion. But any person of common sense may perceive, if

the frog be pared away, it cannot be admitted to touch the ground, as nature designed it should; for want of which support, the tendon is forcibly elongated and strained; hence, frequent lameness of this tendon is occasioned, and hence, also, windgalls are frequently produced.

As to those tendons, I am aware, that many persons maintain they are elastic bodies, but it is, nevertheless, an error.

For all tendons and muscles are confined to their proper sphere of action; and hence it follows, that, if they were elastic, the force of any muscle of the limbs (the upper and lower parts whereof are tendinous) would be eluded, and fail in its object, before such tendinous part could act according to the will.

Paring the frog has to sustain other objections also. In the first place, if admitted to touch the ground, it helps to stop the horse from sliding, as the figure of it plainly shows. Secondly, the frog with its bars, occupying the hinder part of the foot, is designed by nature to distend the heels, or, as we now say, to keep the heels open; but when cut away, and their strength impaired, this suffers the heels, the quarters, and the coronary ring to contract upon the internal structure of the foot. Hereby another description of lameness is produced, as diseases of the navicula, and of the coffin-joint; neither of which can be ascertained with any degree of precision, certainly not distinguished from each other, to any useful purpose, until after death.

The bars are situate between the heel, the frog, and the quarter on each side, and should not be scooped out according to the general mistaken practice, for the reasons just mentioned; because, in conjunction with the frog, their use is to keep open the hinder part of the foot, as well as to defend it. Neither is the spongy, skinlike substance to be cut away until it becomes raggy, because it is the expansion of the skin round the heel, its use being to unite more firmly the foot and its contents; as well as to keep the cellular parts of the heel from growing rigid; it also surrounds and covers the coronary ring, and may be observed to peel and dry away as it descends thence upon the hoof.

The crust.—Those are the general rules to be observed with respect to every kind of foot. But, because Mr. Lafosse has said “the frog and sole should never be pared,” many smiths of our country, mistaking the extent of his meaning, have

fallen into another extreme, and do not pare the foot at all. Yet is it quite necessary, that the crust of all horses' feet which are shod should be pared more or less, according to its different degrees of strength; although it must be allowed that no general instruction can be laid down, as to how far this paring is to be carried, because the nature of feet differ greatly from each other, in size, in thickness, and in hardness or brittleness—by which circumstances alone the workman is to be guided. And to prove the necessity of thus paring the crust, it is to be observed, that the ground surface of the crust of every foot—that whereon the shoe rests, invariably becomes rotten in a few weeks; so that, if a new shoe be set upon an unsound foundation, it cannot stand firm or long. In such cases, the crust will also shell off, or break away, leaving large chasms, which the smith in vain endeavours to amend in working horses by turning down an adequate portion of the iron.

Now, as it follows, that where the foot is deep and the sole hollow, the crust is generally thick and strong, such a crust cannot be pared down too low—so as not to fall into the quick; because, if suffered to remain, the strength of the crust alone will occasion such a compression on the interior parts of the foot as to produce lameness—as will be shewn further down.

In all broad fleshy feet, the crust is thin, and should therefore suffer the least possible loss: on such feet the rasp alone is generally found sufficient to make the bottom plain, and produce a sound foundation without employing the desperate butteris, or even having recourse to the less offensive drawing knife. Thus it is each kind of foot should be treated—according to its different degree of strength or weakness.

The shoe.—The superficies of the foot round the outside being now made plain and smooth, the shoe is to be made quite flat, of an equal thickness all round the outside, and open and most narrow backwards at the extremities of the heels, for the generality of horses; whilst those whose frogs are diseased, either from natural or incidental causes, require the shoe to be wider backwards. Then, to prevent this flat shoe from pressing on the sole of the horse, the outer part thereof is to be made thickest, and the inside gradually thinner. With such a shoe, it will be seen, the frog is admitted to touch the ground, the necessity of which has

been already shewn. Add to all this, the horse stands more firmly; his feet may be said to take firmer hold of the ground, having the same points of support as in the natural state.

Here, the reader will perceive, is a plain easy method of forming the shoe, agreeable to common sense and reason; being strictly conformable to the anatomical structure of the parts, and therefore in accordance with the design of nature. A method so plain, that one would think nobody could have fallen into any other, or commit any mistake in an art, where nought more is required, than to keep in mind three things, viz.

1. To make smooth the surface of the foot;

2. To ascertain what loss of crust each kind of foot will sustain with advantage to itself; and

3. To nail thereon a piece of iron, adapted to the natural tread of the horse; the design, good, or use of the iron, being only to defend the crust from breaking—the sole wanting no defence, if never pared.

Let us next examine the prevalent manner of shoeing, by comparing it with what has been already said, and we shall soon perceive its sad effects.

Of adapting the shoe to the structure of the foot.—Navicular diseases, so called, are brought on, in nine cases out of ten, by bad shoeing; for the modern artist employs very little difference in the treatment of every kind of foot that may come to hand; but with a strong arm and sharp weapon, carries all before him, and takes away more from a weak-footed horse at one paring, than nature can furnish again in some months, whereby permanent lameness is brought on, sooner or later. Whilst, if a strong-footed horse, with narrow and contracted heels, is brought before the smith, such a one meets with treatment still more severe. Thus, under pretence of giving the horse ease, the bar is scooped, the frog is trimmed, and the sole is drawn as thin as possible, even to the quick; and all this is done without mercy, as it is without judgment, in the workman, who assigns as a reason, that the "horse is hot-footed, or foundered, and cutting away will give him ease;" whereas, if the animal were really lame, this treatment would but confirm the evil, and render it more inveterate. How all this is brought about, is only to be ascertained by examining the structure of the foot internally.

In the interior part of the foot (which few or none of those workmen have ever

examined) there is a broad cartilage annexed to each upper end or corner of the foot bone (called by the moderns, coffin-bone); there is also, a small bone, called the navicula, or nut-bone, placed cross-wise in the foot, behind the conjunction of the coffin-bone, and the coronary-bone,* the ends whereof, are articulated to the inner sides of the coffin-bone, which ends are also cartilaginous; and from the situation, and functions these have to perform in every motion of the foot, it is necessary they should be of a cartilaginous and pliant, or yielding nature.

Now, it follows, that when this same foundered foot (as it is called) is robbed of those parts that were designed to keep it open, the heels and the coronary-ring become contracted more than they were before, by which means those cartilages of the foot-bones I have just described, are more compressed or contracted together. All the membranes and tendinous expansions of the foot, also, are compressed and inflamed, and the cartilaginous ends of the nut-bone, together with the ligaments, are squeezed together as in a vice. Therefore, is it well worth observation, that whenever the heels of a horse are deep or narrow, stricture ensues around the coronary-ring, and such feet fall more or less lame, after some use, and that from no other cause than the compression above described.

The tread.—But the modern artists, not content with ruining and destroying the work of Providence, by the means just described, seem resolved that all their operations shall be of a piece, and in every thing act by contraries. To prove that this charge is not hastily made, I will demonstrate, that the kind of shoe in common use, is at variance with sense and reason, as well as contrary to the natural tread of the foot.

In the first place, it is taken for granted, that no horse can go, if the shoe bears upon the sole; but, to avoid this evil, we hear them say, the modern shoe must be formed and stand concave! Therefore

* Described by us moderns, as the small pastern; a bone that is big at both ends, small in the middle, the small part being embraced by the coronary-ring, (where the hair of the foot touches the horn), one-half the bone lying concealed within the hoof, the other ascending out of it. The lower end articulates with the coffin-bone, the upper end with the large pastern, forming the fetlock joint.

do they make their shoe thinnest on the outside, and thickest on the inside.

Mark, now, the inconveniences arising from the unequal surface of such a shoe! The horse, having, by those means, fewer points of support, is more liable to blunder, to strain the tendons, injure the cartilages and ligaments, break the bones of the foot, and to dislocate some of the joints of the fore part.

The weight of the horse bears chiefly on the inner side of this shoe, which is the highest part; so that the nails next to the heel, when the horse comes to work, must break, or give way, or tear the crust. Hereby the shoe gets somewhat loose, the fine sand of our roads insinuates itself between the foot and the shoe heel, and the horse is then said to be gravelled; or he gets a corn, perhaps, with which he goes lame for life, no effectual remedy being known for this evil.

In the next place, by employing this kind of shoe, though the frog be not pared away, it will be raised to such a distance from the ground, that it cannot be admitted to touch it; by which intervention of the shoe between the frog and the ground, the flexor tendon within the foot loses its support, as much as if the frog were actually pared away, and disorder of the tendon ensues. Furthermore, the heel of the horse is hereby corroded and eaten away, and the crust is also more liable to be broken. Notwithstanding all these facts are so easily ascertained, those men are obstinate and weak enough to affirm the direct contrary, and give it as a reason for making the outside of the shoe thinnest, not perceiving the consequences of such unequal pressure on the crust. Or, we might say, more properly, the total absence of pressure on that part of the crust which most requires it, and which, by its superior hardness, is most capable of sustaining pressure, namely, the outer or external face of the hoof.

Having thus shewn what a variety of lameness is superinduced by the wrong manner of shoeing, I shall leave all that has been said to the sober consideration of my readers, under the expectation that they will try the experiment of a change from what cannot be worse to what may be better—and go on to state my opinions and experience of the improved and, as I think, only proper method of shoeing.

Shape of the shoe.—Let the shoe on every description of horse, stand wider at the points of the heels than the foot itself;

otherwise, as the foot grows in length, or luxuriantly, the heel of the shoe, in a short time, gets imbedded in the heel of the horse; and this pressure often breaks the crust, or produces temporary lameness, probably a corn.

Let every kind of foot, on being shod, be kept as short at the toe as possible; so as not to affect the quick; for, by leaving a long toe, the foot becomes thin and weak, and the heels low, whereby the flexor tendons of the leg are strained; whilst the shortness of the toe helps to widen the heels, or, as some say, to keep them open and expansive. So, in all thin weak-footed horses, the rasp should be laid on the toe in the like manner, with a view to render it as thick as possible; for, hereby, the whole foot becomes gradually thicker, higher, and stronger, and is thus rendered more capable of resisting injuries, and the wear and tear of travelling. But, in all those feet where the texture is very strong, the rasp may be laid obliquely on the fore part of the foot towards the toe, and the toe itself thinned, whereby compression on the parts is diminished by lowering the strength of the crust. This rasping, however, is to be used with great discretion, lest the crust, being thin, and therefore unable to support the weight of the horse and his load, a sand crack ensue; which frequently follows a too free or unskilful application of this tool, or from the naturally rigid texture of the hoof next to the coronet.

At first shoeing a weak, or thin hoofed horse, on the improved plan, it is advisable for the workman, when he cuts the toe short, to leave it nearly square, merely rounding off the angles with the rasp. Of course, no nails are to be driven into the hoof farther forward than these angles; even in the stoutest hoofs, nor so far in general. By these means, he not only prevents stumbling down hill, but the nourishment that would descend to the toe, now goes to strengthen the heels, and to keep them open. This latter piece of advice applies more to the hinder feet than to the fore ones; because the horn is always thicker at the toe, before than behind, of every individual horse, whilst the quarters are ever thicker of horn behind than before, by reason of the wearing at the toe being greater behind than before; a comparative fact, that teaches us to keep short the toe before, if we would have good sound quarters, cause the horn to fill up, &c.

The heel of the shoe, moreover, on all

strong and narrow-heeled horses, should be made strait at the extreme points; the form of the shoe, in some measure, helping to distend the heel of the horse. For the same reason, the shoe on no horse should be continued farther than the point of the heel.

On paring.—It has been said already, that neither frog or sole should ever be pared away; nevertheless, it must be understood, that it is impossible to pare the crust without, at the same time, taking away a portion of the adjacent sole; it is also further requisite, in order to obtain a smooth and even surface, so far as the web of the shoe reaches, but no farther.

The frog, too, will form an exception to the general rule, as it often becomes ragged, and loose flakey pieces will occasionally separate from the body thereof; and this will take place sometimes in one foot and not in the other, arising from the greater heat or fever in the foot so affected, either by reason of some disorder of the lungs falling down thus partially, or by its being the leading leg when the horse is put on his best pace. Whenever this happens, the loose pieces should be cut away with a knife, to prevent gravel lodging therein. But, if this discretionary power of cutting away, be left with the workman, he will be sure to take away more of it at one time, than will grow again in many weeks. The lower point of the frog, towards the toe, should also be taken down whenever it grows too high or luxuriant.

Yet must it be allowed that no precise method of shoeing can be laid down as strictly applicable to all horses alike; which arises from the different nature, form, and texture of horse's feet: but the prejudices of mankind on all such occasions may be worth remarking upon, as having been the let or hinderance to improvement. Thus, one man invents a new piece of machinery, which he finds to be very useful and proper in many respects, and let us add, just too. Hereupon, his pride and self love would fain extend its application to all purposes whatever. In this light, he warmly recommends it to his neighbour, who having tried it, and finding it fall short of the pretensions so set up, he falls into the other extreme, and declares it to be good for nothing. Hence, that which may possess many claims to adoption, when treated with moderation, becomes neglected of those who should be its patrons, and is totally thrown aside. Hence, also,

the perfection of some arts is less extensive than it might be ; and this one of defending the feet of the most useful and most noble animal on earth, among the rest, supremely.

Now, this flat shoe that I have been speaking of, is not to be made with a smooth surface, after the old French fashion, but channelled round, or what is called fullered, after the English manner ; by which form, the horse is better prevented from sliding about, and the heads of the nails are less liable to be broke off —both which inconveniences attend the shoe with the ground surface quite smooth. But so ignorant are these our artists (who say they do not require teaching) that not one of them can make these flat shoes, though a pattern lies before them, for which reason they generally dislike and condemn them.

Cutting.—It has always been deemed a difficult matter to prevent horses from cutting, when once they have fallen into that evil way of going ; it is, nevertheless, very easily accomplished, if people will but attend to the causes which produce it. Whoever will be at the trouble of examining the feet of such horses as cut, will, at all times, and in all descriptions of horses, find the cause to be the same ; namely, to turning out their toes, and consequently intruding the inner heel of the shoe towards the corresponding leg and foot. Hence arises the necessity of boots and bolsters, and bandages, round the fetlocks of half the horses trained at Newmarket, to prevent knocking their joints together ; which all our thorough-breds are likewise liable to incur in training, at strong work, by their manner of turning, especially when the turn is short or hastily made, when it is affected by their passing the fore legs over each other.

Now, by way of remedy, let us examine the cause ; which will be found in the form of the colt's standing to graze. As all the youngers, particularly well bred cattle, are high-mounted, that is to say, long in the legs, they take the grass with an out-stretched foot, whereby it rests mainly on the inner quarter, and this part is worn lowest. This fact is usually disregarded by the breeding farmer ; whence an evil habit of standing is acquired, the toe grows outward, and the foot becomes crooked from the fetlock-joint, downwards—whereupon we say, it points badly.

It may perhaps be repeated, that this habit of turning out the toe is entailed on

certain horses by nature ; that is to say, foaled high before ; or, the leg behind being low set on, or coming too much underneath the body (as happens to filly foals, mostly), which seems to throw up the fore-hand, inordinately. But, whether it be natural or acquired, the immediate cause of cutting is still the same in all horses so afflicted, and depends on nought else than the inside heel being lower than the outside. And, to prove that this doctrine is true, as well as to remedy the evil betimes, let the farrier, as soon as he perceives the colt's toe turning out, pare down the outside of the foot as much as he can ; let this be repeated as often as the foot will allow of it, but leave the inner quarter alone : thus will the animal grow straight on his legs and feet, with the toe pointing forward, and never cut or knock himself about when he comes into use. The crust should also be suffered to grow fullest on the inside of the foot, and the outer part thereof be rasped away as far as can be spared.

By following this method, we may also prevent grown horses from cutting, if the foot be strong enough to bear a sufficient loss ; if not, the substance of the iron defence may be made thicker on the inside of the foot, from the heel to the toe, than it is on the outside ; and, where it is practicable, and shall appear necessary, both those methods may be employed, and each will assist the other in attaining the desired purpose. I have rode a horse treated in this manner several years, and have found it of but little inconvenience to his going, or to his feet ; much depending, in such cases, on the goodness of the hoof itself. In like manner, such of the dealers as are masters of their business, use this kind of shoe to raise the inside of the horse's foot, and make him point, or stand straight on his feet ; the which object being achieved, cures cutting before or behind, or high or low. The purchaser of such a horse, who thinks he has bought a straight-legged nag, is much surprised, and with reason, at the alteration he perceives in him, the first time it is shod in shoes that are equally thick on both quarters.

Our modern shoeing smiths, however, in this as in many other affairs they undertake, act by contraries, and rasp away as much as they can from the inner part of the feet, whereby the outer part of the wall gets stronger and stronger every day, and cutting is superinduced in horses

originally straight-footed, for they are thus compelled to turn out their toes, and then it is the inner heel of the shoe that inflicts the cut.—*From Mr. Hind's late publication of Osmer.*

SHOEING SMITH. The shoeing smith, more frequently known by the denomination of blacksmith or farrier, is, unluckily for those who profess it, a business of much greater bodily labour than professional emolument; hence it is, that few, except the very lowest classes of society, can ever be prevailed upon to engage in it. Here then has always been the deficiency so much complained of, and so universally known, with all the practitioners of the old school, acting as smiths and farriers, whether in town or country; and it is much to be regretted, that their original want of education, the means of instruction, and their total ignorance of the properties of medicine, should have hitherto secluded them from every chance of mental improvement, and personal emulation. If we advert to their manners, we find them in direct uniformity with their intellectual capacity; rude by nature, they become cunning by art; unfortunately untaught, it is their greatest pride to become proportionally untractable; and knowing so little themselves, they confidently affect to believe but little is known by others: shielded by which ideal sagacity, they obstinately persist in an opinion of their own, in opposition to every other, or individually determine to abide by no rational opinion at all.

When a candid comparison is made between their dangerous and laborious employment, and their disproportioned emoluments, it must be admitted by every mind of liberality, they are the worst paid for their drudgery of any set of men in the universe. Hence arises that sterile apathy in the business, which is so much the subject of general indignation and universal contempt; and is the only well-founded reason, why there are so few men of education, or intellectual ability, to be found amidst the daily increasing number who profess the practice. Custom, too, has excluded them from any respectable weight in the scale of society; thereby rendering the obstacles to worldly elevation too numerous, and too uncertain, for even the most laudable and spirited emulation to encounter, with even a distant probability of success. These considerations readily reconcile it to reason, why (upon the most moderate calculation, taking the kingdom in general from one

extremity to another) there is not more than one in every hundred, who exists by the practice of shoeing and farriery, that can speak with precision upon the property of the medicine he prescribes; or elucidate, with propriety, the probable process, or ultimate effect, of the operation he recommends.

In such predicament, probably anxious to do good, without the personal power to effect it, they may be impartially considered "men more sinned against than sinning;" and in many instances, much more entitled to the commiseration of the enlightened, than the contemptuous indifference they so frequently receive. Happily, however, for the vocation itself, much more happily for the community at large, improvement in the practice of farriery has at length become an object of national consideration; and the institution has been repeatedly honoured with parliamentary contributions; under which predictive ray of reformation, part of the present generation may probably not only derive future advantage, but live to see the former system rescued from the ignorance and barbarity by which it has been for so many centuries disgraced. The great hazard arising from the practice of the injudicious or ill informed, is their possessing an unrestrained power of plunging into a bold and inconsiderate use of the most dangerous medicines, the present operation and ultimate effect of which they so little understand, and are so absolutely unable to explain.

It is no uncommon thing to hear of bleeding, rowelling, purging, glystering, and blistering, nearly all taking place (with the same subject) within the space of twenty-four hours; and could a thousandth part of the poor unfortunate animals so rashly annihilated, but rise and recite the load of medical combustibles and contrarieties by which they were destined to their long and last sleep, what a complicated history of the *materia medica* would be brought to light, and what a scene of professional knowledge displayed, to form the basis of reformation, with that long list of sublime disquisitionists, who, waving the disgraceful appellations of smith and farrier, are becoming veterinary surgeons in almost every remote corner of the kingdom! One great and almost invincible error amongst the veterinarian fraternity (of whom there are many juveniles now to be seen) is their superficial survey, and hasty decision, in cases of the utmost magnitude; anticipating the prog-

nostic, without even descending to examine the predominant symptoms of disease. Passionately fond of affecting infallibility, they rashly promise more than they find themselves able to perform; and thus by their own weakness, voluntarily exposed, are frequently compelled to retract to-morrow, what they may have most inconsiderately asserted to-day; thereby overwhelming themselves with a load of professional disgrace, from which there seems no sanguine prospect of speedy extraction.

Smiths and farriers in general, being unfortunately ignorant in the peculiar property of each particular medicine, is not a greater misfortune, than their being absolute strangers to the medicines themselves, thereby becoming the standing dupes of adulteration. The warehouses and shops of inferior druggists, it is well known by men of experience, are by no means remarkable for professional purity; in some obscure corner of which is generally a reservoir of rubbish, admirably adapted to the price and practice of farriers, with whom a custom so laudable has been established for time immemorial, and from the palpable pecuniary effects upon both parties is not likely to be abolished.—*Taplin.*

SHOOTING is unquestionably one of the most fascinating amusements in the world, and it is one of those which clings to human nature almost in dotage. The writer has known more instances than one where decrepid old sportsmen, on the approach of the season, have been busied in preparation for several weeks, and some have even procured new guns, though unable perhaps to walk a quarter of a mile! There is perhaps no amusement whatever where success is so anxiously desired, or so confidently anticipated, as by a shooter on the approach of the 12th of August or the first of September; though the disappointments which almost uniformly attend the novice are extremely mortifying; yet hope sustains the spirits; every subterfuge is resorted to, on which to fix the blame of miscarriage, while the true reason is studiously kept out of sight:—the powder is bad, or the shot, or perhaps the fowling-piece is crooked; the game rises too near or too far off—every thing in fact will in turn be wrong, or at least be made to serve as a salvo, rather than the real cause candidly acknowledged, namely, lack of skill, or, rather, want of steadiness, in the sportsman.

To acquire the art of shooting flying,

poor inoffensive swallows, are often put in jeopardy: how far this practice is calculated to promote the intended object, we will not pretend to determine exactly; but very little practice will enable a person to become a very expert swallow shooter. The flight of these birds is regulated by the winged insects upon which they feed, and the elevation of the latter is determined by the state of the atmosphere. When swallows fly about ten or fifteen yards from the ground they are easily shot; the distance being completely within reach, and as every now and then they turn, or become stationary for a moment, a slender share of skill is sufficient to bring them down. Every thing that accustoms the tyro to the use of the fowling-piece, will more or less promote the object, and swallow shooting will no doubt assist; but in preference to destroying these very useful birds, whose appearance associates the beauties of spring and summer to the mind, we should certainly recommend shooting at sparrows and starlings, as they are very mischievous, and their flight, particularly the latter, resembles, in some degree, that of a grouse or a partridge. But, allowing that practice of this sort will assist, it will not attain, the ultimate object; nor does in fact the secret or skill consist merely in the dexterity of shooting flying—the alarm which is caused by the sudden spring of game, and the noise which ensues, throw the young sportsman so completely off his guard, and create such a trepidation, that some practice is at least indispensable, before these difficulties can be overcome; nor, until the game is approached with the utmost coolness, the sudden spring, &c. regarded with indifference, and the object selected with deliberation, will the sportsman be able to bring down the object with almost unerring certainty. We will suppose a man to be an expert swallow shooter—let him approach a covey of partridges, prepared to fire—the birds rise suddenly with great noise and confusion, and the swallow shooter will be so completely bewildered, that they are sure to escape; or, if he hit one, it will be merely an accident.

A young shooter, on the first of September, is prepared for the field almost before the gray of morn will enable him to distinguish any object:—he directs his hasty steps to the place where he expects to find a covey. The dog sets, and aware that the birds are almost under his nose, the tyro approaches the important spot with irregular step, and with a palpitating heart—the

dog is motionless as a statue; his master has advanced one step before him, with such an increase of trepidation as to be scarcely able to breathe—the awful stillness of a few seconds is interrupted by the sudden spring and screaming of the covey, and the shooter becomes so confused as to be incapable of levelling at any individual bird, and the whole fly away, leaving the sportsman much chagrined at the disappointment. On the recurrence of several of these disappointments, the dog will become uneasy, and will not hunt with his wonted cheerfulness: the fall of the bird gives as much pleasure to the dog as to the shooter; and a capital dog, if no game be killed to him, will become careless and eventually good for nothing. Practice, however, will soon overcome the obstacles just mentioned; and, with an ordinary share of self command, no person need despair of becoming a tolerable shot. By way of illustration, we will, once more, suppose the young shooter in the field, with two dogs; he perceives one drawing on the scent and settling to a point—let him call out *Toho!* holding up his hand at the same time: the word will induce greater care in the first dog, and if the other should not be aware of the game, he will immediately look about him, and, seeing his master's hand, will keep his position (no matter what his situation may be, either before or behind the shooter) or, to speak as a sportsman, will *back*. We will suppose both the dogs perfectly steady—let the sportsman advance, deliberately, up to the setting dog; and, if the game should not spring, let him go before the dog—if the birds should run, instead of taking wing, he will be aware of the circumstance, by the dog following; but if the dog follows or *foots* too eagerly, he should be checked by the words *take heed!* These are anxious moments; but the sportsman must, nevertheless, summon all his fortitude, and continue as calm as possible, with his thumb on the cock; when the game springs, he should pull up the cock, and select an individual object—if the bird flies straight forward, it is a very easy shot; let the sportsman direct his eye down the barrel, and the instant he perceives the bird on a line with the muzzle, let him pull the trigger; in levelling, however, the aim should be rather above, than below, the object; for the shot, if correctly thrown, will form its centre from the centre of the muzzle of the fowling piece: nevertheless, in this respect, allowance must be made for the trim of the gun, or for the

manner in which it throws the shot, with which I am supposing the sportsman perfectly acquainted. If the bird should fly directly across, or only partially so, and thus describe the segment of a circle, the aim must be directed before the object; if, with a common gun, four inches; with a percussion gun, two inches; supposing the distance to be about thirty yards. The average of shots is perhaps from twenty to thirty yards, though forty is within reach, and even fifty, particularly with a percussion gun. When the bird flies in the shooter's face, as it were, or towards him, he should let it pass before he attempts to fire, or he will be almost certain to miss.

In what manner soever the object might present itself, we will suppose it comes down; and though it should fall directly in view of your dogs, they must not stir. The sportsman will direct his attention to the covey, and, after *marking down*, will proceed to reload. At the commencement of the season, part of the covey will frequently remain; if, therefore, the dogs are not steady on the shot, mischief must ensue. The dogs should not be allowed to follow a winged bird till the fowling-piece is reloaded; the bird had much better be lost than the dogs injured; though very few winged birds will be lost with good dogs.

Let the sportsman be careful, in loading the piece, to keep it at arm's length, and not hang his face over the muzzle. Also, if he uses a double gun, let him examine, whether by any means the other barrel has become cocked—indeed, whether he has fired or not, he ought to see that the cock or cocks are secure, before he places the fowling-piece on his left arm for the purpose of advancing; the fowling-piece should be carried with the trigger forward, and as nearly perpendicular as possible. A gun is a dangerous instrument, and therefore care is indispensable.

In shooting at a running object, the fowling-piece should be levelled forward, as a hare will carry away a great quantity of shot, if struck about the buttocks:—a trifle kills them if hit in the head, or just behind the fore leg.

The great secret of shooting feathered game is the attainment of philosophical calmness: a hare even, whose progressive motion is attended with little or no noise, yet starts so suddenly as to disconcert the inexperienced; but the rising of a pheasant, particularly out of a bush, will not fail to startle any stranger to the diversion: Fabricius of old, who testified no symptom

of astonishment at the sudden appearance of an elephant, would not have been proof against surprise had a pheasant risen before him.

In aiming, the writer has met with several gentlemen, who did not shut one eye, and who, nevertheless, were very fair shots. Savages, in some parts of the world, are very expert with the bow and arrow at moving objects,—the Emperor Commodus excelled in this respect, and with arrows, headed with broad sharp barbs, was able so cut off the head of an ostrich at full speed; yet, neither the native savages, nor the more savage Roman, shut one eye, or even looked down the arrow, but directed their attention to the object. There is a strong sympathy between the action of the hand and the organs of vision, and we have no doubt that by practice the union just mentioned will become so perfect as to produce the effect of almost unerring certainty. In this way, good shots may be accounted for, who regard the object with both eyes, without looking down the fowling piece. Nevertheless, we have not the least hesitation in recommending the practice of shutting one eye.

It may not be amiss to observe that a sort of unconscious or involuntary motion or movement of the arms and body accompanies the level, which should not be checked till after the piece is discharged—if stopped at the moment of pulling the trigger, the bird most likely will fly away. Also, for a very long shot, the level should be higher than usual, as the shot will not fly any great distance before it begins to come downwards. In levelling, the fowling piece should be held firmly to the shoulder, the left hand placed either close to the trigger guard or a few inches in advance: the former is perhaps safer in case the barrel bursts; but the latter will prevent the gun becoming point heavy. The writer always rams *well home*—the powder, in a patent breech, if not more than a proper quantity is used, will always lie loose (and thus ignites much better) as the wadding cannot be forced further than the top of the breech (and the closer the wadding fits the better); the shot should certainly be well rammed. The fowling-piece too will require wiping out once or twice during a hard day's shooting; also, in going out in the morning, it should be aired by firing a little powder: if percussion priming be used, it will be necessary to place wadding over the powder in the barrel, or it will be apt to be driven out unexploded; the force of percussion prim-

ing is so great, that it drives the atmospheric air before it with such violence, as to expel the powder before the fire reaches it.

It sometimes happens that a sportsman may cock the gun, and, not firing, have occasion to let down the cock—in doing which, he should let the cock pass, and, bringing it back to the half cock, make it *tell* well into the tumbler. A gun, (let me repeat it,) is a dangerous instrument, and should be used with the utmost caution.

For partridges, a brace of good dogs is quite sufficient at once; but they should be used to hunt together, and be perfectly acquainted with each other; otherwise they will be jealous, and commit many mistakes. To beat a country in a sportsman-like manner, a person should not go straight through it; but form circles, as it were, traversing well the ground, and taking care to give the dogs the wind as much as possible; at the same time, the sportsman should not be afraid of beating the ground over twice where there is any reason to believe there is game. He who patiently beats and ranges his ground over and over again, will generally kill the largest quantity of game; and will be sure to find it where it has been left by others. A hare will frequently suffer a person to pass within a few yards of her, without stirring; and birds will often lie so close as to suffer themselves almost to be trod upon before they will attempt to rise.

It will be proper to observe, that the shooter should never strike either bush or indeed any thing, with his fowling-piece. Should he use the butt end for this purpose, it is possible the cock may be caught by some branch, and thus cause the piece to be fatally discharged; on the contrary, should a bush, &c. be struck with the muzzle end, the sportsman will be very liable to lose his shot. It is an advisable practice to examine occasionally, in shooting in general, whether by any means the shot has moved.

If the sportsman use a double gun, and has discharged one of the barrels, he should, after ramming the wadding on the powder in reloading, put the ramrod down the barrel that has not been discharged, which will be less trouble than placing it under his arm, or otherwise; he then can put in the shot; and on taking the ramrod out of the other barrel, he can instantly ascertain whether the shot has moved. Care must be taken in pouring the charge of shot down the barrel which the sportsman is loading, that none of the pellets escape down the

other barrel, as by this means the ram rod will sometimes become wedged very fast, and not moved again perhaps without some trouble.

In discharging one barrel of a double gun, the shot in the other will frequently be loosened, if paper or any such pliable wadding be used; but with punched card, this will seldom, if ever, happen: though it is highly advisable to examine, nevertheless, in order to avoid every possible danger.

Horses, where they can be used in shooting, no doubt diminish the fatigue; and if birds fly straight forward, it is very easy to shoot while on the saddle; the same remark will apply, if the birds rise or fly to the left; but the case is very different if they rise and make off on the right—the horse's head must then be instantly turned to that direction, or the game escapes. For this purpose ponies are frequently used, which have been so accustomed to the sport, as to be perfectly reconciled to the firing of a gun. However, on many of the grouse mountains, riding is altogether impracticable; and as to riding amongst inclosures in partridge shooting, it is tedious, and by no means calculated for a keen sportsman.

On an excursion to the Highlands of Scotland, the sportsman should provide himself with every thing necessary, not only to clean his fowling piece, but also to repair those parts which are liable to be broken, or get out of order, such as the breaking of the cock, main spring, &c. as gun-smiths, or indeed any person capable of doing these jobs, are seldom to be met with amongst the mountains of the north. On grouse shooting excursions in general similar preparations should be made.

As to the colour of the shooter's dress, green is supposed to be the best in the early part of the season, and when winter approaches, a kind of light brown, resembling the stubbles: this last colour will be found to answer throughout the year; and indeed it is highly preferable in hot weather, as it is much cooler; or, in other words, it does not possess so much attraction for the rays of the sun.

Grouse shooting is very laborious and requires both judgment and experience, particularly in mountains to which the sportsman is a stranger. As the season is frequently very hot, it becomes highly necessary to be clothed accordingly. The lighter the dress the better, taking care at the same time to let the garments next the skin chiefly consist of flannel. A flannel shirt and drawers are the best that

can be used for this purpose; and ought in fact to be considered as indispensably necessary. Flannel, though so capable of administering warmth, is, notwithstanding, a bad conductor of heat; and therefore, if the sportsman habituates himself to wear it, he will experience but little increase of heat in summer on that account; at the same time, it must be allowed, that nothing will so effectually absorb the moisture which arises from excessive perspiration, and consequently there can be no better preventive against taking cold. Some persons have an aversion to wearing flannel next the skin, and to such we would recommend calico, on account of its possessing a quality of absorption superior to linen. In hot weather, to walk among the heath till violent perspiration ensues, and then to become stationary for a little time (which will undoubtedly sometimes be the case in grouse shooting) is almost a sure method of taking a violent cold, if a linen shirt is worn next the skin; to say nothing of the disagreeable sensation it excites, by sticking to one's back. Short boots that lace close, but which are easy to the legs and feet, are to be recommended: for shoes, when you walk on the mountains, gather the tops of the heath, which will be very apt to rub the skin off your feet. It will be advisable also to rub some tallow on your heels, the bottoms of your feet, and the joints of your toes, before you go out in the morning, which will not only cause you to walk easy, but prevent that soreness otherwise consequent to a hard day's grouse shooting. It need scarcely be mentioned that the liquor flask is a very necessary appendage, to the bottom of which should be attached a tin cup, which will enable the sportsman to allay his thirst by mixing water with his brandy: rinsing the mouth will perhaps be found occasionally to answer the desired purpose: but on no account should cold water be drank alone; the fatal consequences of which, when a person is in a violent perspiration, are well known.

In bad weather, the birds will generally be found about midway on the hills; and in case of very bad weather, the butts of the mountains are the places to which they resort; but in fine weather, they will frequently be found near the tops.

Grouse go to water immediately after their morning flight, which is the proper time to begin the day's diversion: from that time till the extreme heat of the day comes on, good sport may be obtained; as also, from half-past three till sun-set.

Should the sportsman, however, be inclined to continue his diversion in the dead time of the day (which is from about eleven till three) let him be careful to hunt all the deep cracks he meets with, as grouse frequently creep in them to shelter themselves from the excessive heat of the sun; at this time also, they may frequently be found in mossy places.

In this diversion, be careful to give your dogs the wind, and also to try the sides of the mountains which are most sheltered: if it blows hard, you will be certain to find the birds where the heath is longest; and when this unfortunately happens to be the case, they generally take long flights, and these too, are, for the most part, *down* the wind, which is the very reverse of what most other fowls are known to do.

On finding a pack of grouse, the old cock is generally the first that makes his appearance, and the first that takes wing: if he has not been much disturbed, he will run out before the dogs, making a *chucking* noise, and will generally get up and *challenge*, without seeming to testify any fears for himself; but by this he warns the hen and the poults, which immediately begin to run and separate. The hen generally runs as far as she can from you, in order to draw your attention from the poults; and if the latter are strong enough to shift for themselves, she will sometimes make off altogether, in which case, good diversion will generally follow. The main object, however, should be to kill the old cock, in which case you will most likely be enabled to pick up the young ones, one after another, as in the beginning of the season, they lie very close, particularly after hearing the report of a gun, which terrifies them to such a degree that you may sometimes pick them up with your hand from under the dog's nose. When this happens, the ground cannot be too carefully beaten. It frequently happens, however, that the old cock gets safe away, for he is seldom inclined to suffer the near approach of the sportsman. Old cocks may be frequently found sitting alone amongst bunches of heath or long grass, surrounded by water: the bunches of heath or grass to which we allude (and which seem to be a favourite resort of the solitary cock grouse) being situated in splashes or wet places.

It is well known that game, generally speaking, are difficult of approach in wet weather; but the case is somewhat different with grouse, at least in the beginning of the season. A few years ago, the writer was shooting on the extensive moors be-

longing to the Bishop of Durham, near Weardale (August 13, 1822); it came on to rain very violently; and, as he was endeavouring to shelter himself under a huge stone (fragment of a rock), the Bishop's head keeper, Mr. Wm. Rippon, approached for the same purpose. The rain fell heavily for some time, and the heath, of course, was drenched with wet. As the day was far spent, the writer had some notion of retiring, supposing, according to the general idea, that the birds would not lie. In the course of conversation, however, the keeper informed me that this was a mistake, and that after a heavy rain, grouse would *lie like stones*. In order to ascertain the truth of this assertion, the writer immediately sallied forth and met with good diversion. The birds lay so close, that they literally rose under the noses of the dogs, and some suffered themselves almost to be trod upon before they would rise. They were principally single birds, but that, in all probability, arose from the circumstance of the number of shooters on the same moors, by whom the broods had, of course, been scattered.

The writer was somewhat surprised at what was new to him, and directly contrary to the generally received opinion; but the reason is evident: the heath being remarkably wet, the birds could not run; and, as they had been alarmed by much previous firing, they were afraid to get on the wing, and hence the matter seems completely explained. But at a later period of the season, the case would no doubt have been very different; and it may be taken for granted, that game of all kinds are difficult of approach in wet and boisterous weather.

Of all shooting, none is so laborious, either for man or dog, as that of grouse; the sportsman ought, therefore, to be provided with plenty of dogs, in order to rest them alternately; and one brace, or a brace and a half, of good ones at a time, will be fully sufficient.

To insure an abundance of grouse, care should be taken, prior to the pairing season, to destroy a number of the male birds, as, at the close of the shooting season, a preponderance of cocks will uniformly be found. It is well known to sportsmen, that the cock bird is always the first to take wing; he cautiously avoids the approach of the shooter, and hence the reason why so many male birds are always left. If, therefore, at the commencement of the breeding season, more

cocks are left than can find mates, furious battles ensue, much confusion is produced, and the nestling and incubation suffer in consequence.

It is a prevalent opinion that a dry breeding season is detrimental to grouse; this, we conceive, to be a notion hastily adopted, and which will not bear the test of investigation. And, while this opinion is so inconsiderately taken up, it is as strenuously maintained, that the season cannot be too dry for partridges. Now, it appears strange, to say the least of it, that a wet season should be conducive to the health of young grouse, and yet highly detrimental or destructive to young partridges. They are not exactly the same birds, it is true; but they are in some measure allied to each other, while there is a striking similitude in their habits. In a dry breeding season, partridges are sure to be abundant; for a very good reason, their eggs are not chilled by the wet, nor do the young birds suffer, for the same reason; and it will take something more in the shape of argument, that an inconsiderate assertion, or the dictum of ignorance, to convince reasonableness that the case is not precisely the same with grouse. The mountains, distinguished by the name of Westhope Fells, Westmorland, are remarkably wet, and for this reason (according to the prevalent notion) as the season (1820) had been uncommonly dry, they should have produced an abundance of game, or, at least, much more than other mountains, which were equally remarkable for being dry. This was not the case; for, on the 13th of August, when we ranged Bollyhope Fells, which are very dry, I found the grouse much more abundant—in the proportion of four to one.

As grouse, however, are found only in particular parts of the country, the pursuit of these fine birds is by no means so general as partridge shooting. Grouse are out of the reach of Cockney sportsmen; and though many tradesmen, resident in large towns, contrive to enjoy, now and then, the pursuit of the partridge, they seldom venture upon a grouse shooting excursion, on account of the distance, perhaps, as well as the expense necessarily attendant upon it. The Highlands of Scotland abound with grouse, as well as black game; while ptarmigan, or white grouse, are found on the grey tops of many of the highest mountains. But these birds, in Scotland, are not confined to that part of the country, particularly

distinguished by the name of the *Highlands*, as they are very plentiful in other parts—at least the black and red grouse; in the neighbourhood of Nithsdale, belonging, principally, to the Duke of Buccleugh, for instance, these birds appear as numerous as in the Highlands.

In England, red grouse are found in greater plenty in Cumberland, perhaps, than in any other part, and particularly in the neighbourhood of Shap (principally, we believe, the property of the Earl of Lonsdale); they are also plentiful in Westmorland and Durham, and also in Yorkshire: they are to be found on the hills in Lancashire; grouse, both black and red, are to be met with in Derbyshire and Staffordshire, as well as in several other parts of England, but not in profuse abundance. Grouse are also found in both Ireland and Wales.

For several weeks prior to the 12th of August, dog carts may be frequently seen on the road to the North, laden with that sagacious animal, which so essentially contributes to the success of the chase; and, as the time approaches, equipages on a smaller scale may be observed in great numbers, all directing their course to the scene of action. About the 10th or 11th, the roads become crowded with sportsmen and their attendants, who travel principally in gigs, in the bottom of which is generally seen, a convenient receptacle for several pointers. The more humble pursuers of the chase seize the opportunity offered to them by numerous extra stage-coaches, of reaching their destination in time; and thus, by the eve of the 12th, every one is at his post, palpitating with the eager expectation of to-morrow's sport, and uttering the most fervent ejaculations for fine weather.

Grouse, when sent to a distance, should be packed air tight, and not drawn.

We are not aware, that we can give those who have never visited the moors, a better idea of a grouse shooting excursion, than by extracting a page or two from Johnson's "Shooter's Companion;"—"Myself and my companion (says the author) reached Bowes, a small town in Yorkshire, on the confines of Durham, about three o'clock in the afternoon of the 12th (this day falling on Sunday, in 1821, and the shooting not commencing till Monday) and having mounted ponies provided for the purpose, we left the high road, and, with but a slight knowledge of the country, set out in search of a small village, called Chapel, in Weardale, West-

morland. In order to reach the *point d'appui* as soon as possible, by the advice of a rustic whom we met, we attempted to cross a considerable extent of moorland: for this purpose, we followed a path pointed out to us, and traced it for a considerable time, till at length, it dwindled into a sort of sheep walk, and shortly afterwards vanished altogether. Still we kept onward in the direction that had been pointed out, till, from the lowering appearance of the horizon, threatening unfavourable weather, scarcely sufficient light remained to enable us to avoid the bogs which frequently obstructed our progress. It was but an indifferent bridle road at best; and as we became enveloped in the dusk of the evening, we found ourselves in the midst of boundless moorlands, dotted here and there with lead mines, which we could but just discover by the aid of the murky twilight; not a human being was to be seen on this dreary waste. After wandering about for some time, in a state of uncertainty, we discovered through the gloom, at a short distance, two uncouth figures, which appeared to be stalking towards us. They approached, and, like guardian genii, accompanied us to a road (a rough one certainly) by which we ultimately reached our place of destination, at a quarter past eleven o'clock, after a most uncertain and irksome journey. Having made arrangements for the following day, we retired to rest at twelve, and had not been in bed more than an hour, before the trampling of horses, and the whistling of dogs, &c. sufficiently indicated the anxiety of brother sportsmen to be on the mountains at the peep of morn, to see the first rising and flight of a grouse. The mountains in this neighbourhood, rise, for the most part, very abruptly, and to great heights; they are, nevertheless, much inclined to bog, and walking over them is attended with no ordinary fatigue. We rose a little before two o'clock; and, after making a hasty, but not a very hearty, breakfast, we mounted our ponies, and, accompanied by our guides, directed our steps up a long, winding, steep ascent, which led to the wished for spot. The weather was hazy, and the gray of the morn enabled us to see the dense fog, which hung, like rolling smoke, in volumes, round the tops of the mountains. No one but a true sportsman can picture to the mind, that eager, that impatient, anxiety which is felt at a moment like this; particularly as, from report, we had reason to believe that

abundance of game lay before us. But this anxious feeling is not confined to the sportsman:—his dog partakes of it, in a greater degree, if possible, than himself.—The motion of his tail, his crouching curves, his impatient whine, the blandishment of his expressive eye, all confess the delightful anticipations which animate his eager hopes.

Grouse shooting may be placed at the head of what the French would significantly enough call *la chasse au fusil*. In fine weather, nothing can equal grouse shooting: in wet weather it is attended with vexation.

Our diversion in the early part of the morning did not equal our expectations, for numerous parties were scattered over the mountains, and the ground on which we commenced operations, had been already ranged. Several ardent sportsmen had ascended the hills at midnight, ranging the summits of the mountains in order to drive the birds into the vallies, and thus be enabled, the moment the dawn of day admitted sufficient gray light, to commence their amusements at a distance from the fog, which almost uniformly caps the summits of lofty hills, at this time. However, it was not broad day-light, by any means, when a solitary fine old cock cheered our spirits by his chattering, and fell to rise no more. In every direction, the heath was enlivened by the ranging of dogs, an occasional whistle, and the almost continual firing of guns.

We had been led to believe that, the breeding season having been tolerably fine, grouse would be found in abundance; and this was strictly true; but yet, for several hours we met with nothing but single birds. I never recollect traversing grouse mountains where the walking was more unpleasant, more irksome, or more fatiguing. The birds were strong on the wing and wild, which, consequently, rendered the pursuit much more laborious; in fact, the fatigue was excessive, and at eleven o'clock we sat down to lunch beneath enormous masses of awfully projecting rock; and, with our heads reclined against one of these *solid*, not *downy*, pillows, we enjoyed a very comfortable nap. And here young sportsmen should be cautioned against lying at full length, or sleeping, on the ground, unless it be uncommonly dry, as well as against drinking cold water, when heated, to excess; it being better to alleviate thirst by a little diluted spirit, or if the flask should be prematurely exhausted, by washing or rinsing the mouth

at the first spring or rivulet. The most fatal consequences have often resulted from a disregard of these precautions. Like giants refreshed, we sprung from our slumbers, and pursued our sport till we could no longer distinguish the flight of a grouse; better success than we had expected to meet stimulated exertion, and left us no time to think of fatigue. As the evening closed in, however, we sought our ponies in the valley below, and, although they were not more than a few hundred yards off, we could scarcely reach the spot from excessive fatigue. Arrived at our homely inn, we made a hearty supper, took a cheerful glass, talked over the day's sport, and threw ourselves into the arms of Morpheus, who strewed his poppies over us without much solicitation. On demanding our account in the morning from 'mine host,' we found that his name should have been '*Woodcock, by the length of his bill,*' his charges very much resembling those of *Peacock* at the London Tavern, although the accommodations were of a very different description."

In fact, the grouse shooting season is considered as a harvest by the publicans and miners also, who reside in the immediate vicinity of the mountains; and every species of imposition is practised with the most unblushing effrontery; but perhaps of all places, there is not one where imposition assumes a grosser form, or is more successful, than in that part of Stainmoor, in the neighbourhood of Bowes (Yorkshire). To say nothing of the extravagant and shameful charges exacted by the publicans, there are a set of lounging fellows, who offer themselves as attendants on the moors; and should these be thought necessary, it becomes an indispensable part of the sportsman's business to make a bargain beforehand, or he will subject himself to the most outrageous imposition. These fellows will demand as high as ten shillings per day for their services, and if not well looked after, will run a score of ten shillings at the inn (if such places can be called inns, which, however, is a gross misapplication of the term). The moors in these parts are free; and in consequence, numbers of novices annually arrive, who immediately fall into the snares, as it were, of these harpies. Jolly Briareus, one of these ruby faced landlords, watched the arrival of his prey with more than ordinary expression of countenance. On the approach of the 12th of August, this ruddy carbuncled Bonniface

placed himself in front of the house almost incessantly, on the look out for the *pigeons* (as he was pleased to term them) with a longing leer on a countenance, so difficult to define, and yet so significantly expressive, that those who ever watched its workings for a few seconds, would ever afterwards retain on their memories, its indelible impression.

The neat little town of Bowes, as well as Old and New Spittle, two or three miles distant, may be regarded as a sort of general rendezvous for those sportsmen who either do not choose to ask, or are unable to obtain, permission to range more strictly preserved domains. At this place there is a great extent of moor, which is claimed by a number of proprietors, who possess no paramount right, and therefore are unable to prevent a general unsolicited range, which uniformly takes place. At the same time, the mountains are much better travelling than they will be found in many other places, and, being surrounded by excellent preserves, scarcely ever fail to abound in game. Spittle is also a general resort for dog dealers and *dog stealers*; and the sportsman who visits this neighbourhood unprovided with this very essential assistant in the chase, may be accommodated exactly according to his means, or the price he is willing to give. But, though this may be a general practice, it is one more honoured in the breach than the observance; and those sportsmen who depend upon such suspicious means, will hardly fail to experience disappointment.

During the whole of the season, grouse are regularly conveyed by the stage coaches to all the large towns, and particularly to Manchester and Liverpool. For this purpose there are certain days appointed, when quantities of these birds are brought to particular houses by the road side, at which the coachmen and guards call; and this unlawful traffic is continued with as much regularity, if not with as much publicity, as the authorised dealing in any other species of marketable commodity. Abundance of game is thus conveyed from Yorkshire, and the northern parts of England, to places situated at a distance, or more to the southward; and when the weather becomes cold, and the game will keep, considerable quantities are brought from Scotland.

As to the dog best calculated for grouse shooting, various opinions will be found to exist, some preferring the setter, and others the pointer. Although excellent

dogs of both kinds are to be met with, there are some leading characteristics which eminently distinguish the long and the short haired dog. The setter is a hardy, impetuous, unruly animal; which, if taken into the field when very young, will frequently set intuitively; but no sooner does he acquire strength than he shews a turbulent spirit, and can only be kept sufficiently obedient by constant exercise. On account of their long coat, setters are more affected by heat, and, consequently, sooner become thirsty than their sleek, thin coated rival; and, in very dry weather, suffer from want of water on the grouse mountains. The well-bred pointer, on the contrary, is a docile creature, very easily reduced to obedience, and, when once well trained, requires neither very hard work, nor severe correction, to keep him submissive and tractable. The pointer, however, is more liable to become foot sore, either from the wiry lacerations of the heath, or from running upon hard and stony ground; consequently, in a sharp frost, he is unable to hunt: the olfactory organs of the pointer are unquestionably superior to, and more acute than, those of the setter; and he will generally be found pre-eminently conspicuous in a harsh dry wind, blowing from north or north-easterly directions, at which time, the scent will be found very difficult of recognition.

We are of opinion we cannot finish the highly interesting subject of grouse shooting in a more satisfactory manner, than by the following interesting letter, which appeared in the *Annals of Sporting*, vol. 2, p. 298:—it was addressed to the editor, and ran thus:—

“Sir—you must know that I am but a young sportsman at present; a mere novice in the science of shooting; till the present season, I never saw a grouse on the wing: but, being ardently attached to the sport, I determined on visiting the moors of Yorkshire, though my residence was at the distance of almost two hundred miles. For a month before the 12th of August, I could scarcely think of any thing but the moors, of which, however, I had formed a very erroneous idea. I thought they must bear some resemblance to Charnwood Forest, in Leicestershire, and was never more surprised, that when, on reaching Yorkshire, I beheld the very different aspect presented by the abrupt and mountainous moorlands, to the plains and gentle ascents of the forest just mentioned. If I saw no “cloud-capt towers,”

I beheld, very plainly, cloud-capt hills: for the first time in my life, I saw the summits of the mountains enveloped by the clouds, beneath which, the dark and sombre hue of the lower parts of these heathy hills, conveyed, at the distance of a mile, a very fallacious idea of their real form and appearance.

“I experienced all the anxiety felt by sportsmen, on the approach of the 12th of August. I arose at midnight, between the 11th and 12th, and ascended the mountains before I could discern the flight of a bird: up to this moment, I had never seen a grouse on the wing (as I have above observed) and I now heard them chatter for the first time in my life. It was the gray of the morn; and I could hear these birds, in various directions, and observed several variations in their cry or call, one of which was an excellent imitation of the words “*come back! come back! come back!*” These matters may appear trifling to an old grouse shooter, but they were quite new to me, and forced themselves on my attention; my situation was altogether novel; nor do I think any thing can be more interesting to a young sportsman, who visits the moors for the first time, than listening to the calling of the grouse a little before day light.

“Almost up to the knees in ling or heath, I commenced my operations. My dogs, though excellent, were strangers to grouse shooting as well as myself, nor did they at first seem to relish the diversion:—they run into the first pack or brood, and raised it out of distance; six dark coloured birds rose, and skimming over the top of the heath, were quickly out of my sight: indeed, in colour they appeared so nearly to approximate the ling over which they flew, that they proved a puzzling mark for me when they were completely within gun shot. More birds were raised in a similar manner; and I soon discovered that grouse must be approached with much more caution than partridges; I also found that they rose in a different manner, and that the sport was not at all similar to that of the midland counties.

“I was extremely anxious to kill a bird: I fired six shots, and had the mortification to see the birds uniformly fly away: indeed, when I pulled the trigger, I was always in doubt, for I could not discern the object half so clearly as if a partridge had been before me. I met, at length, with several grouse not half grown, and was fortunate enough to break the

wing of one of these *squeakers* ! I seized the prize with eagerness, but it was very young, very small, unsatisfactory in every point of view, and only served to increase my vexation. I began to lament that I had visited the moors ; that I had made so long a journey to seek diversion which now appeared to me so inferior to what might be obtained at home ; and, to add to my chagrin, while making these irksome reflexions, I happened to get *ingulphed in a bog*, nearly up to my middle ! I could not help venting my grief aloud : I cursed my own folly, for having undertaken a journey of *two hundred miles*, which I now conceived could not fail to end in the bitterest disappointment. With the assistance of my attendant and guide, I got tolerably well cleared of the wet and filth which adhered to my cloaths when I emerged from the bog, and I hesitated for some minutes whether or not to quit the mountains, and immediately return home : the idea that my friends would have *the laugh against me*, alone determined me to continue for some time longer upon these dreary and uncultivated wilds.

"An hour or two elapsed, during which, I fired repeatedly, but was not fortunate enough to bring down a bird. Arrived at a spring of fine clear water, I sat down in despair, determined, after taking a little refreshment, to leave the moors and return home. I had been walking over broken and boggy ground for some hours, sometimes nearly up to my knees in ling, sometimes up to the ancles in dirt and water, had crossed a number of deep and yawning ravines, been once nearly smothered in a bog, had ascended a number of steep hills, and was, in fact, become completely fatigued, as well as severely mortified by a succession of unlooked for disappointments. However, I had scarcely seated myself when the *chattering of a grouse* attracted my attention : I observed the bird approach : I rose—it was crossing me at the distance of thirty or forty yards—I fired—it fell ! I ran to the spot with all the eagerness of ardent expectation. I seized the prize with rapture—viewed it with delight. I instantly felt a full flow of spirits—my fatigue had vanished, and I determined on continuing my range, regardless of the fine clear spring, and my late intended refreshment.

"The bird I killed was a fine old cock ; and in the course of something less than an hour, I succeeded in killing three other

young, but fine, birds. My spirits were now raised to the highest pitch of exultation, and I felt confident that, before night, I should bag at least *ten brace*. I did not, however, realize these sanguine expectations ; but, with more than half the number, I quitted the mountains, at seven o'clock, delighted, after all, with my day's diversion.

"On the second day I commenced my operations with renewed vigour, and was more fortunate than on the first. I had become, in some degree, accustomed to the rising and flight of the game—I could distinguish it better ; I became also, in some measure, familiar with the mode of traversing the mountains ; and, after spending a few days more in this way, I returned home with this conviction, that grouse shooting is very laborious, but that it affords, at the same time, *the finest diversion in the world.*"

Partridge Shooting—The best time for this diversion is from two hours after sunrise until eleven o'clock ; and from half-past three o'clock until it is dark. When the weather is very dry, especially at the beginning of the season, as soon as the sun becomes very powerful, the scent is dissipated, and the dog's abilities are put to the test to no purpose. In the middle of the day, partridges cease to feed or run, and place themselves by the side of some sunny bank in order to bask.

Such is the impatience of sportsmen on the morning of the first of September, that they sally forth, and commence operations generally before they can well discern the flight of a bird ; yet it rarely happens that much execution is done in this very early part of the morning ; and the writer feels a perfect conviction, that if the sportsman could prevail upon himself to wait till eight o'clock, that his day's diversion would be much more satisfactory ; he would experience much less fatigue ; and, nineteen times out of twenty, would bag more birds. The same observations are equally applicable to grouse shooting. Game, either from the empty state of the stomach, or some other reason, is not easy to approach at a very early period of the morning, though in a few hours afterwards, it will lie as well as possible. When birds are driven from their ground, or usual haunts, early in the morning (at four or five o'clock, for instance) the ground should be visited again sometime afterwards, as the birds are sure to go back.—A sportsman who goes over a certain extent of country at four or five

o'clock in the morning, may perhaps not bag a bird; another, following the same track, at eight or nine o'clock, will be very likely to experience good diversion.

In general, partridges have their separate feeding and sleeping places; but it frequently happens, that they remain all day or all night where they fed the preceding evening or morning; yet it much oftener happens that they change their ground. At day break, they quit their sleeping place; they run, and soon afterwards *call*; and, when collected, generally take their flight to the stubbles, which, if high and thick enough to afford them shelter, will most likely induce them

to remain there for some time: however, in dry weather in particular, they are frequently to be found at this time among potatoes or turnips. As soon as the sun becomes very powerful, or towards ten or eleven o'clock, they place themselves on the south side of some bank or eminence, to bask, where they will remain for several hours, if undisturbed. They seek the potatoes and turnips, towards three o'clock, or perhaps earlier; feed in the stubbles again in the evening, afterwards call, and seek the place where they intend to remain for the night. When partridges are calling, they seldom lie well; or, in other words, they will not permit the sportsman to approach within gun shot.

My pointers *stand*;

How beautiful they look! with outstretch'd tails,
With heads immoveable, and eyes fast fixed,
One fore-leg raised and bent—the other firm,
Advancing forward, presses on the ground.

FOWLING, a Poem.

We must again draw from Johnson's "Shooter's Companion:"—the author observes, "Although I have been a sportsman for more than twenty years, I still retain much of that feeling of anxious anticipation in which young shooters indulge themselves on the eve of the first of September, and which arrives at its greatest height when the gray dawn of the next day appears, but which is seldom realized by the events which succeed. Young and indifferent shooters, on this occasion, calculate on performing wonders; and, in order to qualify themselves for the sport, they generally, for several preceding weeks, practise at swallows—'a custom more honoured in the breach than the observance;' for a person may become a most expert swallow shooter, and yet not bring down a partridge once in a dozen shots: and nothing can be more ill advised, and even cruel, than the worse than useless slaughter of these birds, which daily destroy millions of noxious insects. The flight of swallows is quick and capricious, and yet their destruction is easily attainable by the fowling-piece. The sportsman takes his station with calmness and even *non chalance*; and, selecting his object from the number that are fluttering around him, deliberately waits for the precise moment, when his victim may be destroyed with almost unerring certainty. With *game* the affair is quite different; the object is larger, much larger, but the exact spot whence it will spring is not ascertainable, while the sud-

den rush, and noisy confusion accompanying the rise, so astonish the tyro or the bungler, that the fowling-piece is discharged not only too soon, but generally at random. Hence it will easily be perceived, that little or no analogy can exist between swallow shooting and partridge shooting. The secret of shooting may be easily explained, as it is comprised merely in *coolness* and *deliberation*; these, however, are not so easily attained, as the superficial observer might be led to suppose.—A friend of mine (continues the author) who has followed this diversion for forty years, still continues a very indifferent shot: the rise of a covey never fails to dissipate his previous mental resolves, and he has, nineteen times out of twenty, the mortification of seeing the game go away untouched; but it must be observed, that, to say nothing of his firing too soon, he has contracted a habit which must for ever preclude any thing like certainty in shooting:—no sooner does his finger touch the trigger, than he *shuts both his eyes*! And yet, though conscious of this preposterous defect, and aware that if a bird fall from his gun, it is merely the effect of accident, should he be shooting in company, and happen to fire at the same time as his companion, he will not fail to claim the merit of having *killed the bird*: indeed, to judge from his conversation over the bottle, a stranger would suppose, that, as a shot, he was equal to Sir John Shelley. I have seldom met with a bad shot who was not extremely

anxious to be thought otherwise ; and who would not, in his cups, relate, with much self-satisfaction and infinite glee, a hundred shooting exploits which never had existence but in his own prolific brain."

The moment the light of the morning will enable the young shooter to discern the flight of a partridge, he is impatient to rush to the scene of action, and is all uneasy eagerness—while his more experienced companion finishes his breakfast. The resort of a covey or two is previously known; the sportsmen therefore direct their steps to an appointed spot, where the dogs come quickly to a point. The shooters advance—the tyro with trepid

eagerness and a palpitating heart;—his veteran companion with philosophic coolness. They arrive at the desired spot abreast of the foremost dog; and, for a few seconds, in almost breathless anxiety, nearly choked with expectation, the tyro expects the game to spring:—the covey rises with screams and confusion, and, at the same instant, the tyro's gun is ineffectually discharged—while his companion, deliberately selecting his object, with one eye shut, and the other steadily directed down the barrel, the bird no sooner appears at the end, than the trigger is drawn, and the partridge falls. The scene is thus described by the author of *Fowling*:—

Full of th' expected sport, my heart beats high
And, with impatient step, I haste to reach
The stubbles, where the scatter'd ears afford
A sweet repast to the yet heedless game.
How my brave dogs o'er the broad furrows bound,
Quart'ring their ground exactly. Ah! that point
Answers my eager hope, and fills my breast
With joy unspeakable. How close they lie!
Whilst to the spot, with steady pace, I tend:
Now from the ground, with noisy wing, they burst,
And dart away. My victim singled out,
In his aerial course falls short, nor skims
Th' adjoining hedge, o'er which the rest unhurt
Have passed.

Sportsmen are occasionally to be met with, who, in taking aim, use both eyes; and others again will be found who declare that they look directly at the bird, regardless of running their eye down the barrel of the fowling-piece; but we are of opinion that it is scarcely possible to become an expert or dead shot, without closing one eye and taking a deliberate aim down the gun barrel with the other. At least, we recommend this plan in preference to all other modes; though we are aware that practice will do much in any way; and that good shots may be met with who adopt a different mode.

Pheasant Shooting. In this diversion the sportsman should be properly equipped for a cover; and, in our opinion, strong woollen cloth gaiters or leggings are preferable to leather, as, in wet weather, the latter are very uncomfortable, and the former are a sufficient guard against the briars, &c.

If the night before you shoot be wet, the droppings of the trees will compel the pheasants to quit the woods; and in this case the hedge rows and furze covers should be tried very carefully, and good

sport will most likely be obtained. This bird is much attached to almost all sorts of covers, especially to the sides of pits where alder trees are growing.

Of all dogs, none are so good for this sport as the setter. Pointers are frequently too tender to follow this bird through the brambles, which is not the case with a good setter; but care should be taken never to let them range out of gun shot. We are perfectly aware that different opinions exist upon this subject; and perhaps the greater number of sportsmen prefer the springer for pheasant shooting, and this little dog, when well trained, will no doubt, answer the purpose, particularly at the commencement of the season, or where the birds have not been much disturbed; but we think the springer too noisy for this diversion, and therefore prefer the setter.

In hedge rows, pheasants lie remarkably well; and, in this case, a pointer or setter will of course make a very steady point, and the bush must perhaps be shaken before the bird will rise; but it is different in covers, where these birds frequently run a considerable distance, and

it becomes necessary to encourage the dog; though one a little used to this sport will need no encouragement.

Pheasants are frequently slaughtered wholesale, in what are called *battues* (which in this case, means a collection of shooters, who proceed on each side the cover, while dogs and perhaps men also, are employed to drive the birds from it) and in such case, no better dog can be used than the springer. Battu shooting is only practised where there is a great abundance of game. The writer has seen (and such a practice he believes is followed at Mr. Willis's of Halsned, near Liverpool) pheasant shooting with one springer only, and the dog had been taught to fetch the bird when killed; but it was where the birds were chiefly found in small covers which fringed the borders of pits.

Naturalists observe, "of all game birds, pheasants are shot most easily, as they always make a whirring noise when they rise, by which they alarm the gunner, and, being a large mark, and flying very slow, there is scarcely any missing them."

"Ah! what avail his glossy, varying dies,
His purple crest, and scarlet-circled eyes,
The vivid green his shining plumes infold
His painted wings, and breast that flames with gold."

The hen pheasant, when pushed, seldom rises so high as the cock, or yet takes so long a flight. A cock pheasant will sometimes fly to a considerable distance; and whenever this happens, as the act of flying is very laborious to this heavy bird, he is not able to rise again for some time. If the sportsman can mark down a pheasant after one of these long flights, and hasten to the spot, he will find the bird to rise with great difficulty, and fly to a very short distance, or, perhaps, he will be unable to rise at all. Indeed, pheasants seem conscious of their incapacity to maintain a long flight, and therefore prefer running wherever practicable, in preference to taking wing; however, after a long flight, they are difficult to find, as, on these occasions, they generally drop into a bush or thicket, and remain for a considerable time (if undisturbed) without moving.

Woodcock Shooting. Woodcocks arrive in Great Britain in flocks; some of them in October, but not in great numbers till November and December, though they are sometimes seen as early as September. They generally take advantage of the night, being seldom seen to come before

The sportsman cannot but smile at this last sentence. A pheasant is easily shot by an old experienced practitioner; but we much doubt whether the tyro stands not a much better chance of success when a *twiddling* snipe rises before him. That the pheasant is a "*large mark*" every one will readily allow; that its flight is by no means rapid, is equally incontestible; but the tremendous bustle and whirring noise which these birds make in rising, so agitates the inexperienced shooter, that he not only fires too soon, but generally without taking aim, and has to endure the mortification of seeing the bird fly away unhurt. A cock pheasant, when *pushed* from a bush or thicket, generally rises perpendicularly till he has cleared every obstacle, before he goes off horizontally. The moment for shooting is when he assumes the horizontal direction. If a novice in the art fire at the bird while he is rising, he will, in all probability, throw the shot below the bird. With an experienced shot, the mode of rising is of little consequence.

sun-set. The time of their arrival depends much upon the prevailing winds; they are unable to struggle with the boisterous gales of the northern ocean, and therefore wait for the advantage of a favourable wind.

They feed on worms and insects, which they search for, with their long bills, in soft grounds and moist woods, feeding and flying principally in the night. They go out in the evening, and generally return in the same direction, or through the same glades, to their day retreat. This at least is the generally received opinion; but it requires elucidation:—the fact is, the bird is on the wing at the very dawn of the morning, and feeds as soon afterwards as he can discover food; he will then generally continue in the place where he has fed, if sheltered, or seek the protection of some cover or hedge; and, if undisturbed, will remain in the same situation till late in the afternoon, when he feeds again, and afterwards takes a short flight or two to his resting place for the night.

The greater part of these birds leave this country about the latter end of February or the beginning of March. They retire to the coast, and, if the wind be

favourable, set out immediately: but, if contrary, they are often detained some time, and thus afford good diversion to those sportsmen who reside near the sea.

Woodcocks generally weigh from twelve to fourteen ounces, and are chiefly found in thick covers, particularly those with wet bottoms; and they are very fond of sitting under holly bushes; they are not, however, fond of covers where there is long grass growing in the bottom and at the roots of the trees.

The sight of the woodcock is very indifferent in the day time, but he sees better in the dusk of the evening and by moon light; and it may also be remarked that woodcocks will lie much better the day following a moon light night, than when it has been preceded by a dark one; the reason is obvious—the bird has been enabled by the light of the moon to make a plentiful repast, and the next day is lazy and unwilling to fly; whereas, when the darkness of the night has rendered it impossible for him to satisfy the calls of hunger, he is constantly uneasy and on the alert in search of food, which he never attempts to seek in the day time, but when constrained by necessity.

Shooting woodcocks is a very pleasant amusement in woods which are not too thick; and, if they are cut through in several places, it renders it more easy to shoot this bird in his passage when he rises, and also to mark him with greater certainty; and woodcocks will generally be found near the openings or roads in the woods, if there be any. In this diversion, a good marker is of essential service; as with his assistance it will be difficult for a woodcock to escape; as he will generally suffer himself to be shot at three or four times before he takes a long flight.

Springers are frequently used for this diversion (see the article Spaniel) and of course give notice by their barking when the cock rises: these animals, when well trained may answer very well; and in fact they are better adapted for this amusement than for pheasant shooting.

The woodcock is a clumsy walker, and rises heavily from the ground; when he is found in an open field or a hedge row, in the pass of a wood, or an unfrequented lane, he generally skims the ground slowly, and is very easily shot; in fact, under such circumstances, he is the easiest of all shots: but it is occasionally otherwise, particularly when he is flushed in a tall wood, where he is obliged to clear the tops

of the trees before he can take a horizontal direction.

Snipe Shooting. This diversion is by no means so interesting as those which we have already described under the present head; but it may wile away an idle hour when superior sport cannot be obtained. There are three different sizes of the snipe, the largest of which, however, is much smaller than the woodcock. The common snipe weighs about four ounces; the jack snipe (or judcock) is not much larger than a lark; the great or solitary snipe weighs about nine ounces, but is seldom met with.

Snipes are to be found all the winter in wet and marshy ground, particularly where there are rushes; they are frequently met with in mountains and moors among the heath; but a severe frost forces them to the springs and running streams. Numbers of these birds remain with us all the year, and breed in our marshes, laying generally six eggs the latter end of May.

The snipe is generally regarded as a difficult shot; and it must be allowed that it requires practice to surmount this difficulty, which arises from the zig-zag manner in which the bird flies immediately after getting up. The best method to pursue in this diversion is to walk down the wind, as snipes generally fly against it; and if a snipe rise before the sportsman, it will not fly far before it turns, and describes a sort of semi-circle, which will afford more time to take aim, by thus remaining longer within gun shot. If, however, the bird should fly straight forward, it will be highly proper to let it get some little distance, as its flight will become much steadier. The slightest wound is sufficient to bring these birds to the ground.

An old pointer is the best for snipe shooting. To accustom a young dog to snipes slackens his mettle, and renders him of little use for partridge or grouse, owing to getting a number of points with little exertion. However, when these birds are plentiful, a dog is scarcely necessary, as walking them up will answer equally well.

Something less than two centuries ago, what is now termed poaching was the gentleman's recreation; no person shot flying; and even within the last hundred years, or little more, an individual, who exercised the art of shooting birds on the wing, was considered as performing something extraordinary, and many persons requested to attend his excursions that they might be eye witnesses of it. Since that period, however, the practice gradually

became more common, and may at present be regarded as universal.

In the early part of the present article, we expressed our opinion as to the best method of acquiring the art of shooting flying; but as the subject possesses much more than ordinary interest, particularly to those who are young in the art, as well as to those who have practised for a considerable period without acquiring satisfactory skill, we shall here introduce another opinion on the subject, elucidating such parts, with our own remarks, as seem to require explanation, or appear to be founded in error.

"In shooting, it is to be remembered, that the hand is to obey the eye, and not the eye be subservient to the hand. *Both eyes should be open*, and the object fired at the instant the muzzle of the gun is brought up, and fairly bears upon it; the sight being weakened by a protracted look along the barrel at a bird, and it is for this reason that birds which spring at the marksman's feet, and fly off horizontally, are frequently missed; his keeping the aim upon them so long fatigues the eye, and the finger does not obey the eye so readily as when employed at a first glance. It is not here meant that a bird is to be blown to atoms as soon as it tops the stubble, but that a marksman is first to make himself a thorough judge of distance; with that knowledge, in open shooting, he will never put the gun to his shoulder until the bird has flown a proper length, and then fire the instant a sight of it is caught."

We have already noticed the method of taking aim with *both eyes open*, and we here again assert that we consider it as a mistaken notion. Let any person point a gun to a fixed object: by shutting one eye, and directing the other down the barrel, he will easily perceive when the level is true; by directing both eyes down the barrel, he will not only perceive a degree of confusion, as it were, but the aim will be with more difficulty, as well as more uncertainty, directed to the object. Nevertheless, we are willing to admit that there are persons who shoot remarkably well, who keep both eyes open, yet, let it be observed that a rifle man or sharp shooter always closes one eye; if, therefore, the latter method is preferable with a ball, why not in shooting at game with shot?

To kill birds flying across either to the right or left, allowance must be made by the shooter both for the distance he is from them, the strength of the bird, and also

for the velocity of the object itself. The motion of a partridge, for instance, in November, will be greatly accelerated to what it was two months before. Practice alone can teach these minutiae, which, if fixed at any given space, or attempted to be uniformly regulated upon paper, might lead the shooter erroneously in the field.

It may not, however, be amiss to remark, that, in a cross shot to the right, the difficulty is much increased if the right leg be first when the bird rises; the gun cannot then be brought but a very trifle beyond a straight line to the right; and sportsmen frequently stand with their feet so far apart when in the act of firing, that it effectually prevents them from bringing their fowling-piece to bear properly upon a crossing object. When dogs point, and when game has been marked and is expected to spring, the progressive motion should be with short and easy steps; the body can then be easily turned upon the legs, as upon a pivot, and the bird commanded even if it should fly quite round the sportsman.

And after all, the science of aiming accurately will be of little service, except the gun is held steady from all starting and flinching at the moment of pulling the trigger; it is to little purpose for a sportsman to traverse the gun with the celerity of a bird's rapidly flying across, if he suspends that motion when he fires. Quickness of sight and steadiness of aim will never constitute a good shot, unless the motion of the gun corresponds with them.

In shooting with any person who keeps his gun cocked and the muzzle usually pointed to the left, carefully keep to the right of him; be careful in getting over or through a fence; and if a shooter beats bushes with his gun, get out of his company as soon as possible.

In the house, as well as in the field, a gun should always be considered as loaded; nor should it ever, for one moment, be pointed towards a human being.

Pigeon Shooting.—Those who feel anxious on the subject of pigeon shooting, could not fail to be highly gratified by a visit to the Red House, at Battersea, where the business is pursued in the first style of excellence. The reader need hardly be told that, in pigeon shooting, the bird is placed in a trap, (at a certain distance, as previously agreed upon,) from which it is set free, at a given time, and fired at by the sportsman. Mr. Osbaldeston, Lord Anson, Captain Ross, Mr.

Shoubridge, Lord Ranelagh, &c. may be classed amongst the first of modern pigeon shooters ; though the very best of their performances have scarcely equalled those of the late Richard Toomer,* who, for a wager, shot six pigeons, out of ten, with a single ball. This man and his brother Edward, have been known to shoot at pigeons, from a trap, with their rifles and a single ball, and to kill eight birds out of twelve, shooting alternately, and one of the pigeons, that did not drop, had its legs carried off by the ball. They have likewise, with a single ball, struck twice out of four shots, a cricket ball thrown into the air. The exploits which R. Toomer performed in shooting, with such apparent ease, soon convinced the persons who saw them, that they were done *methodically* ; and this was completely ascertained by his frequently suffering himself to be blinded with a double handkerchief over his eyes, after having taken his aim, and then to fire and hit a small object.

Rook Shooting.—At a period of the year when field sports cannot be pursued, rook shooting may be enjoyed as a sort of semi-diversion. The rook, it is well known, is one of our very earliest birds in forming its nest ; and the production of its young seems to experience no injury, except from very high winds, and very rarely even from these, as the bird contrives to fasten its nest so strongly to the branch upon which it is formed, that it is but very rarely blown from its situation. Plenty of young rooks may, therefore, be generally expected. The middle and latter end of the month of May is the season for rook shooting. As soon as the young birds have acquired sufficient strength, they sit, or perch, on the sides of the nest, and on the neighbouring branches, and thus form a conspicuous object for the shooter. The air-gun and the cross-bow are the engines generally used for this amusement, the former of which is preferable, not merely on account of its superiority in taking aim, but also inasmuch as it is attended with less trouble and less danger. In drawing up the string of the cross-bow, considerable strength is required ; and, at the same time, great care is necessary, lest it should slip, and severely injure the cheek or face of the shooter.

Rabbit Shooting.—This amusement

never appeared to me as coming fairly within the class of what are generally understood as constituting field sports.

As far as relates to the natural history of this little animal, and its surprising fecundity, they are matters very well and very generally known.—See the article RABBIT.

In some parts of the country, rabbits form a sort of staple commodity with the occupiers of the ground ; but, generally speaking, they are a nuisance to the farmer and the agriculturist, when suffered to become numerous at a distance from an established warren. But I am always much pleased to see plenty of rabbits in a fox hunting country ; and I am decidedly of opinion, that under such circumstances, however numerous foxes may be, those who are anxious to preserve winged game, have little to apprehend from their depredations.

As rabbits are not able to form their burrows in strong clayey* soils, so they are rarely found upon them. Sandy or light dry soils are the favourite resort of these animals, as, in such places, they can easily form that subterraneous asylum in which they never fail to seek refuge on any emergency. But, although rabbit warrens appear like a honeycomb, from the numerous holes formed upon them, and although a solitary rabbit is seldom, if ever, found at any considerable distance from its hole, yet it is evident, that the rabbit prefers being upon the ground, rather than under it, and considers its vaulted recess merely as a place of refuge.

If undisturbed, they will sit in the hedge-rows, or in the fields, like the hare ; and even the female, when about to bring forth, generally quits the regular or accustomed burrow, and forms a more superficial, but less obvious, retreat, in which to deposit her young.

It will, therefore, easily be perceived, that it is in the immediate vicinity of the warren that we are to expect rabbit shooting, (large or small as it happens to be,) as the rabbits, when disturbed, make away for their burrow, and thus present an object for the shooter. For rabbit shooting, a terrier is preferable to either pointer, setter, or spaniel :—to use a pointer or setter for the purpose, is at once to ruin

* The same person who taught Slut, the black sow, to set, &c.

* If they attempt to scratch the earth in such places, the clay adheres to their feet, and entirely prevents their successful progress.

him; nor, indeed, strictly speaking, ought a rabbit to be killed over either of them, under any circumstances. An obedient terrier, that will spring the rabbit without pursuing it, answers the purpose very well: his business is merely to drive the rabbits from the banks, hedge-rows, sides of pits, and other places; while the shooter must be on the alert, ready to present the moment the rabbit appears. This *amusement* (for I think it scarcely merits the title of *diversion*) is a very different business from shooting at winged game, or even at a hare; as, in the latter case, *deliberation* may be regarded as a perfection; in the former, the shooter cannot be *too quick*. The rabbit possesses extraordinary speed for a short distance, and, when disturbed from its seat, darts towards its hole or burrow with the utmost rapidity, and that, too, in such a jumping, jerking manner, as to render the utmost promptitude and quickness indispensably necessary, in order to attain the object in view, viz. bagging the rabbit.

The first time I tried my hand at regular rabbit shooting, I was very much mortified at the ill success of its commencement. In the early part of the day, I had been attempting to shoot on the manor of Wrightington, in Lancashire, belonging to C. Dicconson, Esq. attended by two of that gentleman's keepers—I say *attempting*, as, from the rainy and boisterous state of the weather, and it being rather late in the season, it was almost impossible to get a shot at partridges. Under such circumstances, by the advice of the keepers, I proceeded towards Mr. Dicconson's warren, for the purpose of trying my hand at rabbit shooting. I had occasionally killed rabbits which had presented themselves when I was in pursuit of other game; and, being a tolerable marksman at winged game, I entertained no idea of the disappointment I was about to experience. We proceeded to a hedge-row; and in a few minutes one of the keepers (who beat the hedge on the opposite side) vociferated the well-known signal, "*Mark!*" Out sprung a rabbit, which I very *deliberately* fired at and missed! Thus I continued for six successive discharges, when one of the keepers observed, that, unless I altered my plan, I should not be able to kill a single rabbit. "Keep your thumb on the cock, Sir, (said he,) ready to pull up, and fire as quickly as possible." I took his advice. In a few seconds, the word "*Mark!*" again prepared me for game. I had the

gun to my shoulder at the first glance of the rabbit; and the moment I could catch the sight or aim, I pulled the trigger, and over tumbled the rabbit. I killed the three following, missed the fifth, and killed five more in succession, thus bagging four couple and a half out of ten shots.

I learned from the keeper, that Mr. Dicconson was so expert at rabbit shooting, as frequently to substitute a ball for the shot, and that, too, successfully.

It is a practice with some of our modern shooters, to carry the gun cocked—a system pregnant with danger. Rabbit shooting alone seems to require such a method; but, even in this case, it is unnecessary, as rabbits can be killed with almost unerring certainty in the manner I have above described. I am not aware of a more dangerous practice than that of carrying guns cocked; no wonder if such a system produce many fatal accidents. I would abandon shooting altogether, rather than thus place my own or my friend's life in continual jeopardy.

In rabbit shooting, a ferret is sometimes employed. In this case, the mouth of the ferret is stitched up, or secured, and it is suffered to enter the burrows, from which the rabbits (if there are any) will very soon bolt, so great is their terror of this creature, and, indeed, of all the weasel tribe. In riding over from Liverpool to Chester, as I approached Bromborough Pool, I perceived, in a field on my right, a rabbit pursued by a weasel. The rabbit, though a considerable distance in advance, did not appear to exert its utmost speed. The pursuit, however, continued. The rabbit went through the hedge, and was followed by its merciless foe; but the latter, on passing the hedge, having lost sight of its victim, instantly put its nose down, and flung for the scent like a hound. The rabbit, in the mean time, had gained some distance, but slackened its pace, and ultimately sat still till the weasel approached and seized it. I instantly alighted, and, as the distance was short, I was soon at the spot. The weasel retreated; the rabbit seemed dead; but this was the effect of fear, as, after I had carried it for some distance on the road, it recovered, and ran very stoutly away.

But to return. In rabbit shooting with a ferret, the rabbit, after being bolted by the ferret, is fired at in passing from one hole to another. This amusement, however, is, in my opinion, inferior to that which is obtained by means of the terrier.

SHORT-JOINTED. A horse is said to be short-jointed that has a short pastern. When this joint, or the pastern, is too short, the horse is subject to have his fore-legs, from the knee to the coronet, all in a straight line.

SHOT. The manufacture of this article is arrived at a very great degree of perfection. Various opinions are entertained as to the most applicable sizes for the different kinds of game. Johnson, in his "Shooter's Companion," observes, for general use I prefer No. 5, as it will answer every purpose, snipe shooting excepted, for which I should use much smaller. No. 6 or 7 will be found large enough for the early part of the partridge shooting season; but I cannot agree with General Hanger, that No. 2 is decidedly preferable for all occasions, and from one end of the season to the other. Upon trial, I found that I could scarcely average three shots (or pellets) in a card (four inches by three) at the distance of thirty two yards with No. 2. With No. 5, I averaged eight; and the latter too were driven with a force more than sufficient for the purpose. Upon increasing the distance to forty one yards, I could seldom put in more than one pellet of No. 2; No. 5, at the same distance, averaged four; No. 6, averaged five.

SHOULDER. That joint in a horse which connects the blade bone with the extremity of the fore thigh.

The motions of the shoulders in horses, and in most quadrupeds, are more limited than in men, their chief action being forwards and backwards, wherein they are susceptible or possess a capacity of being raised higher or lower, according to their necessity. A horse's shoulders also move a little outwards and inwards, which is necessary to their going on uneven roads. They have likewise some capacity of a circular rotation, which, however, is but small; and when a horse performs any thing by such motions, it is, for the most part, more owing to art than to nature, viz. when his shoulders have been well supplied by a good horseman, that is, when the muscles and ligaments have been stretched, and rendered pliable, by a skilful management of the rider in long-continued exercise: and therefore, when a horse is brought to perform any of those easy airs, which we observe in the manege, especially when they go through their exercises in narrow circles; though the shoulders have a great share in these exercises, and some horses are much more suited to them, by the symmetry of their

shoulders, than others, yet all the joints of the neck, back, and loins, must also contribute to it more or less. The shoulder-blades of a horse lie like two shields, one on each side, which confine the actions of his shoulders very much to straight motions; whereas, in men, they are placed behind, so that they leave the actions of the shoulders and arms without that restraint. In a horse, the rib which answers in point of situation to the collar-bone is fixed, and in a great measure immoveable; but, in man, the latter is articulated with his shoulder-blade, and participates more or less in all its motions; and hence it is that a man is enabled to turn his arms in several different directions, and to perform motions for which quadrupeds have no ability.

The faults and defects of a horse's shoulders are thus described by Gibson. A horse's shoulders, he says, should be not too much loaded; for a horse that has heavy shoulders can never move well. On the other hand, one that has very thin shoulders, with a narrow chest or bosom, though he may move briskly while he keeps sound, yet such horses are generally weak; and the most easily lamed in their shoulders of all others. A narrow-chested horse turns his elbows towards his brisket, and his toes outwards; crosses his legs in travelling, and sometimes cuts himself; and this sort of horses, by their unsteadiness, are as apt to trip and stumble as the horses that are thick-shouldered, though they do not so easily come down: in the main, they are of less value; for if they happen to get lame they are fit for nothing, being weak and slender; whereas thick-shouldered horses are generally strong; and if any accident happens that renders them unfit for other uses, they will serve for a wagon or team; but a heavy-shouldered horse, at best, is neither fit for the saddle nor for a coach, nor indeed for any thing that requires expedition. But that the reader may understand what is here meant by a heavy-shouldered horse and a thick-shouldered horse, it will be necessary to observe, that some horses have their shoulders full, and yet no way loaded; and when this proceeds only from the largeness of the bones and muscles, and when these are firm, and not loose and flabby, such shoulders will be sufficiently pliable. But when the shoulders are loaded with flesh, and the breast or bosom is also fleshy, the muscles in this case are generally clogged, which being the instruments of motion, such horses

can never step out with freedom, but as if they went upon stilts. But the worst sort of all others are those where the breast projects and hangs over, so that the fore-legs are placed backwards, and appear as if they were stuck into a horse's brisket. Some horses are greatly charged with flesh, or rather may be said to be gross upon the top of their shoulders, and all over their withers, which however is more an inconvenience than any hindrance to their motion; besides that this fleshiness often abates with exercise. It may be observed, that some thick-shouldered horses have also very short thick necks. These are usually the most fleshy of all others, and are worse than those that are thick-shouldered, and at the same time, small and slender-necked; having this additional ill quality, that they are almost always heavy upon the hand.

The diseases of this part have been named by farriers shoulder-wrench, shoulder-pight, shoulder-splait, &c. Gibson says, to understand the nature of these infirmities, it will be necessary to observe, that the blade-bone of the shoulder is fixed to the body, not by articulation or jointing, but by apposition; being laid to the ribs, and fastened by the muscles, which lie under and above it, so that when a horse happens to receive a blow or strain in the shoulder, the tendons of these muscles are stretched and relaxed; and when that is violent, it is called shoulder-splait, and becomes more or less dangerous, as the horse is more or less hardy.

Every one knows that a slip, false step, or any undue position of a horse's legs, will strain and weaken the shoulder, by stretching those ligaments; and sometimes the shoulder is affected by a hurt or bruise on the withers; the reason of which may be easily enough conceived, by any one who will examine into the structure of those parts: but when the accident proves not so violent as to cause inflammation and swelling, it is not so easily discerned, whether the lameness be in the shoulder, in the foot, or any other joint. But the infirmities of the shoulders may be distinguished from those of the feet, by having a horse put to exercise: for if the lameness be in the feet, he will halt most when he is ridden; but if it be in the shoulder, the warmer he grows the less he will halt; and, if the wrench be violent, he will be apt to cast his legs outwards, forming a circle as he goes. But if none of these signs are perceivable, the surest way is to turn him short on the lame side, for that

tries the muscles the most of any thing; so that if the hurt be in the shoulder, he will set his foot on the ground hardily, and endeavour to favour his shoulder.

In the cure, a distinction ought to be made between an old injury and one that is newly received: for in a fresh strain the first intention is to apply such things as are proper to allay the heat and inflammation, and prevent a too great flux of blood to the part; whereas in an old complaint a very different course is to be observed.

Mr. John Lawrence observes, that strains in the shoulders of horses are much less frequent than in the hinder limbs. As to the symptoms, says he, there is generally a *deceptio visus*, all lame horses appearing affected in the shoulders, however sound those parts may be, which is the occasion of the perpetual blunders of grooms and farriers, whose sole rule of judgment is from appearances and custom. The only sign to be depended upon within my knowledge, is the motion of the fore-arm, or a tenderness and tumour in the parts. The muscles or ligaments of the shoulder may be relaxed, or even a dislocation may possibly, but not very probably, happen; contusion and stunting of the point of the shoulder may ensue, from running against any hard body; and lastly, notwithstanding the merriment of Osmer, a horse may be really shook in the shoulders, of which I have been too often convinced. This last is a disease of inflammation and contraction, analogous with surbating and the foot-founder, and to be removed (when curable) by rowels and running abroad. For a dislocation, swimming is generally recommended, or reduction of the joints by extension and counter-extension (the inflammation being previously allayed by relaxing applications) under the care of an able veterinary surgeon; afterwards bandage, astringents, and long rest are to be resorted to.

SHOULDER-PEGGED. Horses are so called when they are gourdy, stiff, and almost incapable of motion.

SIDE-SADDLE. See **SADDLE**, page 755.

SIR PETER TEAZLE. The name of the most celebrated stallion of the last half century; his blood, performances, and progeny, being reckoned inferior to none, and superior to most of those who have ever appeared upon the turf. He was foaled in 1784; bred by the Earl of Derby, got by Highflyer, dam (Papillon) by Snap, grand-dam by Regulus, who was got by the Godolphin Arabian. At

three and four years old he was the best of his time, beating every opponent, and winning stakes to a great amount. The second day of the Craven Meeting at Newmarket in 1789, when four years old, he won a subscription of 50 guineas each; beating Meteor, Pegasus, and Gunpowder; and received forfeit from Bustler, Rockingham, Poker, Patrick, Schoolboy, Harlot, and three others. In the first October meeting of the same year, he broke down, when running against Cardock, Driver, Schoolboy, and Gunpowder, with the odds in his favour; immediately after which, he was announced as a stallion for the ensuing year, at 10 guineas a mare, and half a guinea the groom. In 1794 his get began to appear. A bay filly of Mr. Clifton's won 120 guineas at Catterick, and 145 guineas at Knutsford. Another of Mr. Tarleton's won 100gs. at Preston, and 40l. 10s. at Nottingham; and the afterwards celebrated Hermione won 80gs. at Newmarket, the Oaks stakes of 50gs. (each thirty-one subscribers) at Epsom, 50l. at Lewes, and 50l. at Reading.

In 1795, nine winners appeared, amongst whom Hermione (then Mr. Durand's) won 100gs. at Epsom; the gold cup, 40gs. and 100gs. at Oxford; 45gs. at Egham, and the queen's 100gs. at Chelmsford.

In 1796, twelve winners started. Ambrosio (three years old) won 150gs. and 50l. at York; 275gs. at the same place; and the St. Leger Stakes of 25gs. each (fifteen subscribers) at Doncaster. Brass won 300gs. and 50gs. at Newmarket. A brown colt of Sir F. Standish's won 200gs. and the Prince's stakes of 500gs. at the same place. Hermione won the two king's plates at Newmarket, and 50l. at Guildford. Parisot won the Oaks stakes at Epsom, 50gs. each, forty-two subscribers.

In 1797 his reputation as a stallion continued increasing; eleven of his produce obtained 33 stakes, plates, &c. Ambrosio won the first class of the Oatland stakes of 50gs. each, (twelve subscribers) beating Stickler, Gabriel, Play or Pay, Frederick, Trumpeter, Parrot, and Cannons; 100gs. and 200gs. at Newmarket. Hermione won the third class of the Oatlands, 50gs. each, (twelve subscribers,) beating five others; and the king's plate at Newmarket, and 50l. at Epsom; the king's plate, and 60gs. at Lewes; and the king's 100gs. at Canterbury and at Warwick. Honest John, 100gs. at York, and 100gs. at Richmond. Petrina won three

fifties at Newcastle, Knutsford, and Northampton. Shepherd, two fifties at Durham. Stamford (three years old) 200gs. and 150gs. at Newmarket, 200gs. at Epsom, 280gs. at Stamford, and the gold cup at Doncaster. Welshman won 100gs. at Chester, 50l. and 50gs. at Knutsford, and a sweepstakes at Tarporley.

In 1798, Ambrosio won eight stakes and plates, amounting to 1625gs. Black George won 180gs. and 150gs. at Chester, 45gs. at Newcastle, and 50l. at Knutsford. Demon, 100gs. at Chester, and 60gs. at Tarporley, Honest John, 200gs. at York, and 134l. at Richmond. Pentacruce, 50l. at Dumfries, and 50l. at Ayr. Petrina, the gold cup at Chesterfield, and the king's 100gs. at Lincoln. Sir Harry (three years old) the Derby stakes at Epsom, 50gs. each, thirty-seven subscribers. Stamford, 233l. 15s. and the ladies' plate at York; the gold cup, and 100l. at Doncaster.

In 1799 seventeen started, who were the winners of 37 subscriptions, sweepstakes, and plates. Ambrosio won 50l. at Newmarket, 225l. at York, and 200gs. at Doncaster. Archduke (three years old) won 400gs. at Newmarket, and the Derby stakes, 50gs. each, thirty-three subscribers, at Epsom. Black George, 50gs. at Newcastle, and 70gs. at Lichfield. Expectation (three years old) 100gs. and a handicap plate at Newmarket. Fanny, 140gs. at Doncaster. Knowsley, 60gs. at Catterick; 120gs. and the stand plate at York. Lady Jane, 25gs. at Preston, two fifties at Cardiff, 50l. at Hereford, and 50l. at Abingdon. Parisot, 800gs. at Newmarket. Petrina, 50l. at Warwick, and 50l. at Shrewsbury. Polyphemus, 50l. at Shawbury, and 50l. at Northampton. Princess, 50l. at Epsom, 50l. at Brighton, and 50l. at Reading. Pushforward, 50l. at Penrith, and 50l. at Carlisle. Roxana, 100gs. at Catterick, 300gs. and 100gs. at York, and 80gs. at Beverley. Sir Harry, the Claret stakes of 1100gs. at Newmarket. Stamford, the king's 100gs. and the ladies' plate at York.

His constantly increasing reputation as a stallion produced an annual increase of winners. In 1800 fifteen of his get started, and were the winners of thirty-nine sweepstakes, subscriptions, matches, and plates; the principal of which were, Agonistes, (three years old) 140gs. at York, 220gs. at Newcastle, the produce stakes of 100gs. each at Preston, and 160gs. at Malton. Expectation (then four years old) won ten prizes, 150 guineas, 36gs.

32½gs. and 25gs. at Newmarket; 50gs. and the jockey club plate at the same place; the pavilion stakes of 25gs. each (six subscribers) at Brighton; 200gs. and 60gs. at Lewes, and the gold cup at Oxford. Fanny, the great produce sweepstakes of 100gs. each at York, twenty-two subscribers;) seven she beat, and fourteen paid half forfeit, so that she won 1400gs. in less than eight minutes. Knowsley (the Prince of Wales's) won the king's 100gs. at Guildford, Winchester, Lewes, and Lichfield, with 80gs. also at Lewes, Robin Red-breast, 50l. at Bridgenorth, 50l. at Newcastle, 50l. at Nantwich, the king's 100gs. at Warwick, and 50l. at Lichfield. Sir Harry, 200gs. and 550gs. Sir Solomon made a very conspicuous figure.

In 1801 and 1802 he seems to have attained, in his progeny, the very summit of all possible celebrity: during the former year there appeared 15 of his produce, who were the winners of 44 sweepstakes, subscriptions, and plates, of which the most eminent were Agonistes, who won 100gs. at Newcastle, the king's plate, 216l. 5s. and the ladies' plate at York; the gold cup, of 170gs. value, at Richmond; 120gs. at Malton, and the king's 100gs. at Carlisle. Haphazard, 90gs. at Catterick, 50l. at Preston, 60l. at Knutsford, 50l. at Pontefract, 100l. at Doncaster, and 50l. at Carlisle. Lancaster, 50gs. at York, two fifties and 100gs. at Morpeth. Lucan, 100gs. at Newmarket. Sir Harry, 400gs. and 50gs. at Newmarket, 235gs. at Ascot, and the king's plate at Winchester. Telegraph, 100gs. and 50l. at Newmarket, and 45gs. at Bibury.

In the year 1802, sixteen of his get were the winners of 41 prizes; of which Agonistes won 1000gs. at Newcastle. Attainment, 50l. at Newcastle, 45l. at Nantwich. Duxbury, 250gs. and 100gs. at Newmarket. Haphazard, 50gs. at Catterick, 250gs. and 268l. 15s. at York, 92l. at Richmond, the Doncaster stakes of 10gs. each (thirteen subscribers) with 20gs. added by the Corporation of Doncaster, and the king's plate of 100gs. at Carlisle. Lancaster, 50l. at Middleham, 50l. at Manchester, 150gs. at York, 50l. and 50gs. at Preston. Lethe, 1000gs. and 50l. at York, 1000gs. at Edinburgh, and 100l. at Montrose. Lucan, 50l. at Newmarket, 130gs. at Bibury, 50l. at Oxford, 50l. at Bedford, and 50l. at Newmarket. Pipylon, 150gs. at Newmarket, and 65l. 15s. at Nottingham. Ransom, 50l. at Stamford, and 50l. at Canterbury. Robin Red-breast, 100gs. at Newmarket. Sir

Simon, 50gs. and 25gs. at Goodwood: and Wilkes, 50gs. at Newmarket.

Thus the united blood of Herod, Blank, Snap, and Regulus, are proved equal, if not superior, to every other junction or cross ever introduced. Sir Peter Teazle continued in great repute as a stallion for many years afterwards.

SIR SOLOMON. The name of a horse of much racing reputation: he was got by Sir Peter Teazle, dam (Matron) by Florizel, who was got by Herod. Sir Solomon was bred by Earl Fitzwilliam, foaled in 1796, and started for six different three year old stakes, (in the name of Tankersley) always running in a capital form, and in a good place, but without winning once in that year. He was then purchased by Mr. Johnson, and started (1800) for the king's plate at Nottingham (with his new name) which he won easy, beating Welter, Honeycomb, and Coniac; and the next day a 50l. plate. At York he won the king's hundred, beating Aplegarth, and Honeycomb. In 1801, he won five times out of the six stakes and plates he started for. He won the stand plate at York, beating those famous horses Chance, Cockboat, and Timothy; the king's plate at Newcastle, with the gold cup, and 130gs. at the same place; the gold cup at Nottingham, and 500gs. at Doncaster. In 1802 he won the gold cup, value 100gs. and 60gs. in specie, at Newcastle. A subscription of 25gs. each, nine subscribers, and 268l. 15s. at York, (beating the famous Cockfighter,) 50l. and 70gs. at Lincoln. He was afterwards purchased by Mr. Lumley Saville, and continued to cover for some seasons afterwards.

SIT-FAST. This proceeds generally from a warble, and is a horny tumour on a horse's hide. If it cannot be dissolved and softened by rubbing with mercurial ointment, it must be cut out, and then treated as a fresh wound.

SKEWBALL. A bay gelding, foaled in 1741, bred by the Earl of Godolphin; was sold to Sir Harry Harpur, Bart. and afterwards to Lord Robert Sutton Manners.

Skewball was got by Lord Godolphin's Arabian; dam, (King Pepin, Philistine, and Smirking Nan's dam) by Whitefoot, and was own sister to Bajazet's dam.

In 1747, Skewball won 40l. at St. Edmund's Bury, beating Mr. Greville's Sportley, and 2 others; 50l. at Huntingdon, beating the same Sportley, and Mr. Prentice's Water-Gruel; 50l. at Leicester,

beating Mr. Read's Grandison, and distanced 2 others; also 50*l.* at Peterborough, beating Mr. Martindale's Merry-Cupid, Mr. Bigland's Ranger, and distanced three others. In 1748, he won 50*l.* at Chester, beating Mr. Singleton's Brisk, &c. Skewball (on account of the death of Sir Harry Harpur) was sold to Lord R. S. Manners; and, in the same year, he won 50*l.* at Derby, beating, at two heats, Mr. Prentice's Wafer, Mr. Vavasour's Champion; Mr. Rogers's Moorcock, and Mr. Greville's Phoenix. In 1749, he won 50*l.* at Derby, beating Mr. Hunt's Jigg. He was sold to Mr. Elston; and in 1750, won 50*l.* at Stamford, beating, at three heats, Mr. Curzon's Mixbury; he also ran three good heats against Little Driver, at Stockbridge. In 1751, he received a 10*l.* premium at Guildford; and won the Ladies' purse of 90*gs.* at Huntingdon, beating, at two heats, Lord Gower's Little John, Mr. Vernon's Hector, by Partner, &c.

Skewball was sold to Arthur Marvin, Esq. who raced him in Ireland, where he won a match against Sir Ralph Gore's grey mare, by Victorious, four miles, for 300*gs.*; and a great number of plates and prizes.

SKITTISH. A horse is said to be skittish, who is considerably above himself both in spirit and condition; displaying much more of pleasure in exercise, and the enjoyment of air and conditional freedom, (from the narrow confines of a stable,) than the least tendency to habitual vice. A skittish horse will jump two or three feet at the flight of a sparrow, or upon the rumbling approach of a carriage: he is (unless weary with work) always alive with gaiety and motion, without the least intentional injury to those who ride or drive him. There are those who confound the terms, and consider a skittish and a starting horse one and the same thing; but they are by no means synonymous.

SKYSCRAPER. The name of a horse of much racing celebrity: he was bred by the late Duke of Bedford, and got by Highflyer out of Everlasting. In the Craven meeting, at Newmarket, 1789, when two years old, he received forfeit from three for a sweepstakes of 200*gs.* each, across the flat. The same meeting he beat Mr. Fox's Maid of all work, across the flat, for 500*gs.* The second spring meeting (then three years old) he won the Prince's stakes of 100*gs.* each, eight subscribers; the Derby stakes at Epsom, 50*gs.* each, thirty subscribers. At the same place he received 70*gs.* compromise from

the Earl of Egremont's Tag. In the first October meeting, he received 250*gs.* forfeit from Mr. Ladbrooke's Magpie, two middle miles of Beacon course, for 500*gs.* half forfeit. In the second October meeting he won a sweepstakes of 100*gs.* each, from the Ditch-in, nine subscribers. The next day he won the 50*l.* plate for three year olds, beating nine others. The same week he received 122½*gs.* forfeit in a post match with Lord Derby. In the Houghton meeting he received 130*gs.* compromise from Mr. Fox's sister to Lethe, 300 guineas, half forfeit. The same week he received 130*gs.* compromise from Mr. Fox's Braggadocio, across the flat, for 300*gs.* half forfeit.

In 1790, at the first spring meeting, he won the jockey stakes of 100*gs.* each, (half forfeit,) fourteen subscribers, of which nine paid forfeit. In the same week for the Claret stakes of 200*gs.* each, half forfeit, he received from his Royal Highness the Prince of Wales's Sujah ul Dowlah, his Royal Highness the Prince's Deir Sing, Duke of Orleans' Jericho, Lord Egremont's Calomel, and Sir C. Bunbury's Glaucus. In the first October meeting he received 100*gs.* forfeit from Montezuma. In the same meeting he won half a subscription of 30*gs.* each, (seven subscribers,) beating the famous Escape, then the property of his Royal Highness the Prince of Wales.

In the first spring meeting of 1791, he won the renewed 1400 guineas, a subscription of 200*gs.* each, half forfeit; beating Pipator; fourteen having paid forfeit. In the second spring meeting he received 150*gs.* forfeit of four, for a sweepstakes of 300*gs.* each, over the Beacon. The first spring meeting, 1792, he won the King's plate at Newmarket, beating those famous horses, Coriander, Gustavus, and Toby, with the odds ten to one against him at starting. At Stockbridge he won 50*l.* beating Thalia. He won the King's plate at Winchester; walked over for a sweepstakes of 10*gs.* each, five subscribers, at Bedford; won the King's hundred in the first October meeting at Newmarket, beating Skylark; and in the second a subscription of 60*gs.* beating Skylark and Esperykes, with the odds against him at starting. In 1793 he started but twice, and was beat each time by the celebrated Coriander. In 1794, on the first day of the first spring meeting at Newmarket, he won a 50*l.* plate, beating Serpent and No Pretender; about which time the Duke of Bedford, beginning to reduce his racing

establishment, Skyscraper appeared no more on the turf. He covered at Woburn Abbey, in Bedfordshire. SLOT. The impression of a deer's foot upon the earth.

SLEUTH HOUND. Called, also, **SLUTH HOUND** and **SLOW HOUND.** See the article **HOUND.**

SMELT, THE. Derives its name from having, in the opinion of some, the scent of a violet; of others, that of a cucumber; and so strange is the disagreement respecting the smell of this fish, that the Germans distinguish it by the title of the stink-fish: the name of sparling, which it bears in Wales, Lancashire, and in the north of England, is taken from the French *Eperlan*.

This fish inhabits the seas of the northern parts of Europe; but, is never found so far south as the Mediterranean: the Seine is one of the French rivers which receive it; but whether it is found south of that there is no authority to decide. If the observations of navigators (who have generally too much to engage their attention to think much of the minutiae of Natural History) can be depended upon, smelts are taken in the Straits of Magellan, measuring twenty inches in length, and eight in circumference.

They are met with in the seas that wash our coasts, the whole year, and seldom go far from shore, except when they ascend the rivers, which they do with the tide; and in certain of which it is remarked that they appear a long time before they spawn, being taken in abundance in the Thames and Dee, in November, and two succeeding months; in other rivers not until February; and in March and April they spawn, and are very prolific; after which they all return to the salt water, and are not seen in the rivers until the next season. It has been observed that they never come in the Mersey, so long as there is any snow water in its current; and that in the spring, and beginning of summer, they will run farther up than in the decline of the year: they are also to be met with in the docks that are opened for the reception of ships. The smelt is of a very beautiful form and colour; the head is transparent, and the skin in general so thin that with a good microscope the circulation of its blood may be seen; the irides are silvery, the pupil of a full black, the under jaw is rather prominent; in the front of the upper are four large teeth; those in the sides of both are small; in the roof of the mouth are two rows, and on the tongue two others, of large teeth; the colour of the back is whitish, with a cast of green; beneath which it is varied with blue, and then succeeds a beautiful gloss of a silvery hue; the scales are small, and readily drop off; the tail is forked; the flesh is tender, and of a delicate taste. These fish vary greatly in size: the largest Mr. Pennant ever heard of was thirteen inches long, and weighed half a pound; they are often sold in the London streets under the name of dried sparlings, being split and dried, and are recommended by the gentlemen who take their gills of a morning as adding to the wine a particular relish.

The smelt is to be angled for (when the tide runs up is preferable) with a paternoster line, having five or six hooks as many inches from

each other, and baited differently. The best bait is very small fresh shrimps, (not boiled,) or the tail of a boiled one: next to these are gentles and red paste; also that of boiled shrimps, fine white bread, and a little honey, cadis, blood-worms, and they will sometimes take a bit of their own species; some crumbs of bread steeped in water should be now and then thrown in, to keep them together.

Walton mentions, that many years since, in the month of August, such vast quantities of smelts came up the Thames that women and children became anglers for them; and that in one day, between London Bridge and Greenwich, not fewer than two thousand persons were thus employed.

SNAFFLE. The simplest and plainest bridle-bit is so called: it consists of only a single mouth-piece, having a joint in the middle, with a check of different lengths at each extremity, and an eye annexed to receive the reins; when which are added, it is then called a snaffle (or single-reined) bridle. When snaffle-bits are made very large in the mouth for breaking colts and fillies, they are then called mouting-bits.

SNAP. A brown horse, foaled in 1759, the property of Mr. Latham.

Snap was got by Mr. Shafto's Snap, his dam, (bred by Mr. Meredith) by Cade; grandam, (Dormouse dam,) by Partner, and was own sister to the dam of Molotto; also own sister to the dams of Torismond, Young Cade, Changeling, Match'em, Sweepstakes, &c. Snap's dam was own sister to Mr. Meredith's Mercury and Merryman; also to Mr. Swinburn's Cadormus.

At Ascot-heath in June, 1763, Snap won 50l. for four-year olds, 8st. 7lb. and five-year olds, 9st. 5lb. two-mile heats, beating, at three heats, the Duke of Ancaster's Proxy, by Blank, 5 years old; Mr. Vernon's Cerberus, by the Godolphin Hunter, 5 years old, and four others:—Snap won the first and third heats from Proxy, who won the second heat from Snap. At Malden in August, he won 50l. for four years old, colts 8st. 7lb. and fillies, 8st. 4lb. beating Mr. White's Lucy Cooper, by Tartar; Lord March's bay filly, by ———; Mr. Churchill's bay filly, by Young Cade; and Mr. Burlton's Romeo. At Guildford in June, 1764, he won 50l. for four-year olds, 6st. 10lb.; and five-year olds, 8st. 4lb. four-mile heats, beating Mr. Roger's Cub, by Cub, four-years old; and Mr. Wildman's Gift, by Regulus, five-years old:—at starting, 6 to 4 on Snap. At Ascot-heath in June, he won 50l. for four-year olds, 8st. 7lb. and five-year olds,

9st. 5lb.; two-mile heats, beating, at three heats, Mr. Wildman's Granby, five-years old. Mr. Vernon's Follower, 5 years old, and 2 others:—at starting, 6 to 4 on Granby, and 6 to 1 against Snap, who won the second and third heats from Granby. At Blandford in July, he won 50l. for five-year olds, 9st. 6lb.; and aged, 10st. 10lb. beating Mr. Strode's Star, 5 years old; Mr. Hilliar's Zepharus, aged; and Mr. Dee's Chalfont, aged:—he also, at the same place, won 50l. give-and-take, beating Mr. Beckford's Amelia, 5 years old; and Mr. Frenchard's Aurora, 5 years old. At Chelmsford in August, he received 20gs. no horse entering against him. At Odsey in September, he won 50l. for five-year olds, 8st. 11lb. beating Lord Orford's Ghost:—the first heat was deemed a dead one, and Ghost fell in running for the second. At Maidenhead, (same month) he won 50l. for five-year olds, 9st. 1lb. and six-years old, 9st. 9lb; beating Mr. Wilkin's Athelstone, 6 years old; and distanced, the first heat, Mr. Adams's Mercury, 6 years old. And at Odiham in October, he won 50l. weight for age and qualifications, beating, at three heats, Lord Portmore's brown Surrey, by Steady, four years old; Mr. Dawson's Slouch, 5 years old, and 4 others:—Brown Surrey won the first heat from Snap, who won the second from Brown Surrey, and the third from Slouch. At Epsom, in May, 1765, Snap won 50l. free for any horse carrying 9st.; beating Mr. Dutton's Americus, aged; and Mr. Cox's Harry Longlegs, aged:—at starting, 5 to 2 on Snap. At Ascot-heath in June, he won 50l. for six-year olds, 9st. 7lb. beating Mr. Shafto's Broomstick, by Regulus, who was drawn after the first heat:—2 to 1 on Snap. At Marlborough, (same month) he won 50l. free for any horse carrying 8st. 7lb. beating Mr. Humphrey's Hazard, aged; Mr. Strode's Tiney, aged; and Mr. Popham's

Greybeard, aged. At Winchester in July, he won 50l. for five-year olds, 9st.; six-years old, 10st. beating the Duke of Cumberland's Milksop, 5 years old. And at Odsey in September, he won 50l. for six-year olds, 8st. 10lb.; and aged, 9st. 2lb.; beating, at three heats, Mr. Quick's General, aged; and Mr. Byng's Dragon, six-years old:—General won the first heat from Snap, who won the second and third from General. At Epsom, in May, 1766, Snap won 50l. free for any horse, &c. 9st.; beating Mr. Lane's Crop, aged; Mr. Quick's General, aged; and Mr. Hale's Looby, aged:—7 to 4 on Snap. At Ascot-heath in June, Snap started for 50l. for aged horses, &c. 9st. 12lb. when he won the first heat from Mr. Quick's General, and Mr. Strode's Star; but he fell lame in running for the second heat, and was beat for that and the third heat with some difficulty: Star was third for every heat. And at Epsom in May, 1767, he won 50l. for aged horses, &c. 9st. beating, at three heats, Mr. Tyrer's Ploughboy, (who won the second heat from Snap) Mr. Quick's Dædalus, and Mr. Strode's Leopardess:—at starting, 5 to 4 on Snap. This was the only time of his starting that year, and last of his running.

Snap started only twice besides the above, viz.;—at Epsom, in 1763, when he was beat by Mr. Wildman's Granby, (the first time of his running); beating, in the same race, Lord Portmore's Starling, and 5 others; and at Swaffham in 1765, when he was beat by Lord Bolingbroke's Filch, 5 years old, to whom he allowed nearly 3st.

SNIPES. These birds are to be met with in every part of the world. The snipe is seen throughout the Old Continent, from the arctic regions of Siberia to the Cape of Good Hope, at which last place it is common: it also inhabits the islands of Ceylon and Japan. In America it is met with almost without exception, particularly in South Carolina, where it swarms; it is found in equal abundance in the neighbourhood of Buenos Ayres, as well as in all the low and swampy parts of South America. It is also asserted, that, in Egypt, in the fields from whence the crops of rice are just taken, snipes are so numerous, that it is not uncommon for a person to shoot a basket full in a day.

Snipes arrive in the beginning of November in Lower Egypt, and pass the whole winter there. These birds are, in winter, very usual inhabitants of all our marshy and wet grounds, where they shelter themselves in the rushes, &c. In the summer they disperse to different parts, and are found upon our highest mountains, and also in the Highlands of Scotland, as well as upon our low and wet moors: they begin to *pipe* the first week in April; many of them breed with

Snap was a true honest runner, with good speed; and there can be no doubt but if he had been in the possession of some nobleman or gentleman who could have run him in their engagements, or matched him, but that he would have proved himself equal, if not superior, to most horses of his time at Newmarket.

Snap was a stallion at Mr. Sparrow's at Sutton, near Epsom, Surrey, at 5gs. and 5s.—he was sire of Lord Farnham's Sempronius, Hippomenes, and Cul Blank; Sir J. Shelley's Fantail; Lord Abingdon's Lady Bumfidget; Lord Waltham's Blossom; Sir F. Poole's Staring Tom; Mr. Vernon's Maxim; Mr. Parker's Lottery; Mr. Adams's Master Slender; Mr. Watson's Molly Spindle, Squib, Shrimp, Beau, &c. &c.

SNORTING. Is a cartilaginous propulsion of sound from the nostrils of a horse, which he avails himself of at different times, to signify sensations seemingly opposite to each other. Upon being led from the light, through a gloomy passage, to a still more gloomy stable, he is frequently observed to snort either from fear or surprize; meeting or coming suddenly upon a new, strange or unnatural object, he snorts from absolute dread of injury; taken into a stable or out-house smelling musty, from foul dung and confined air, he snorts with dislike, and enters with reluctance: but snorting in the field at exercise, or in the chase with hounds, may each be considered a proof of pleasurable gratification.

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us. They lay a very large egg; and the young appear ugly and shapeless; the mother never deserts them till their long bill is firm enough to enable them to procure food. When disturbed much in the breeding season, they soar to a vast height, the male making a singular bleating noise, which, in superstitious times, was called *campana cælostis*, and when they descend, they dart down most rapidly; the cock also, whilst the hen is sitting, poises himself on his wings, sometimes making a whistling, and frequently a drumming, noise; and it is uncertain whether this noise is ventriloquous, or is produced by the motion of his wings.

These birds feed on worms and insects, which they find in the moist ground, as also on snails, which last have been found whole in their stomachs: they usually have abundance of fat, which is not apt to cloy, and rarely disagrees with those that eat it: it is cooked like the woodcock, without extracting the entrails, and is every where esteemed for its delicious flavour.

The common snipe, as we have already observed, under the head snipe shooting, weighs four ounces; length, near twelve inches; breadth, about fourteen; the bill is three inches long, and rough or serrated at the edges; the head is divided lengthways by two black lines, and three of red, one of the last passing over the middle of the head, and one above each eye; between the bill and the eyes is a dusky line; chin, white; the neck is varied with brown and red; the scapulars are beautifully striped, lengthways, on one web, and barred on the other with black and yellow; the quill feathers are dusky, but the edge of the first is white, as are the tips of the secondaries; the quill feathers next the back, are barred with black and palered; breast and belly, white; tail coverts, long, almost cover the tail, and are of a reddish brown; the tail consists of fourteen feathers, black in their lower part, then crossed with a broad bar of deep orange, another narrow one of black, and the ends white or pale orange; the vent feathers, a dull yellow; the legs, pale green; and the toes entirely divided. In the Leverian Museum are some specimens of snipes with the plumage curiously variegated.

The following interesting observations respecting the snipe were made by a gentleman of Norfolk: he says "that their first coming is early in September, which is merely transitory, stopping for a day or two, or, perhaps, only for a few hours; they are then often found in large flocks, but do not lie well. At the end of October the greatest number arrive, are found more universally dispersed, and afford better amusement than earlier in the season; but immediately as the severity of winter commences, they almost entirely disappear, and return no more till March, previous to their final departure." During frost, this gentleman says, he has searched the spring ditches (where water is constantly springing) which, remaining free from ice, presented both food and shelter; but, excepting the two or three early days of the frost, found very few. The backwardness or forwardness of the spring, he says, always influences snipes, which induced this gentleman to remark the coincidence of the time of the flowering of wild plants, and that of the re-appearance of the snipes. In Feb-

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ruary, a few prematurely arrive, as in 1800, when, upon the 26th, he found several; but a frost set in and again drove them back: in 1801, between the 10th and 17th, there were many snipes in the marshes, during which period, the ground was covered with snow; he looked the same marshes on the 24th, and did not find a single snipe. In March they again visit the marshes numerous, earlier or later, according to the spring's appearance: in that of 1800 they returned on the 13th; on the 26th, they were observed to be most numerous, and within a few days, most of them left us for other countries; while some few remained to rear their offspring in this. The spring of 1801 was very forward, and several snipes this gentleman observed, on the 9th of March, on Mounhold Heath; on the 11th there were considerable numbers in the marshes, but they were wild; by the 27th many had departed. "In the vegetable kingdom, I observed (continues this gentleman) on the 25th of March, 1800, the March violet in flower; and at that time the snipes were in greatest abundance. In 1801, the violet was in flower on the 5th of March, and on the 9th and 11th the snipes were in plenty, both on the heath and in the marshes. In 1800, the pilewort began to expand its yellow flowers, under warm hedges, by the 26th of March; in 1801, it was as early as the 11th; in both which instances it coincided, even to a day, with the appearing of the greatest number of snipes," which this gentleman observed in the spring of these two years.

The haunts and food of the jack snipe, or judcock, are similar to those of the preceding; but these birds are never met with in such numbers as the common snipe: it lies very close, and will sometimes suffer itself to be almost trodden on before it will spring; its flight is seldom distant, and its motions altogether are more sluggish than those of the common snipe. It is only half as large as the latter, weighing scarcely two ounces, for which reason, in some places, they are called *half snipes*: the dimensions, however, are not exactly in the same proportion, the length of the common snipe being twelve inches; the length of the jack snipe, eight and a half. The bill is above an inch and a half long, and black; crown of the head, black, tinged with rust colour; a black streak divides the head, lengthways, from the base of the bill to the nape of the neck; over each eye a yellow streak passes to the hinder part of the head; neck varied with white, brown, and pale red; scapulars narrow, very long, brown, and margined with yellow; the rump, of a glossy blueish purple; belly and vent, white; the greater quill feathers, dusky; tail, brown, with tawny edges, and consists of twelve pointed feathers; the legs are of a cinereous green.

These birds breed in our marshes. Fermin, in his account of Surinam, says they are seen there by thousands on the sea shore; that he must be a bad marksman who does not kill sixty at once, with fine shot; and that he killed eighty-five at a single discharge; that the flesh is excellent, but the bird so small, that a man may eat twenty at a meal. But Fermin has evidently mistaken the ox bird, or purre, for the jack snipe, as they appear in numbers sufficient to admit such aggregate slaughter.

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The great or solitary snipe is not common in England, but is sometimes met with, particularly on the extensive marsh called Martin Mere, in Lancashire. They are found alone, and hence the name solitary snipe has been given them.

This bird weighs eight ounces; length, sixteen inches; bill, four inches long; crown of the head, black, divided down the middle by a pale stripe; over and beneath each eye, another of the same; neck and breast, of a yellowish white, finely marked with small semicircular lines of black; belly, with cordated spots, and sides undulated with black; the upper parts of the body, very like the common snipe; quills, dusky; tail, reddish; the two middle feathers, plain; the others barred with black.

For a further elucidation of this subject, we must again have recourse to Johnson's Shooter's Companion: speaking of the snipe, the author observes, "It frequently happens, that, an opinion once generally received, however ridiculous its origin, or absurd in itself, if it be not of a nature to excite inquiry, becomes a sort of *common law*, from the circumstance of its being handed from one generation to another with implicit credit, untainted by the most remote suspicion. Thus, in those parts of the country where I have resided, the idea that the snipe rose from its bill, or, that, in rising from the ground to fly, this bird pushed itself up by its long bill, so as to be able to use its wings, was the uniform, but mistaken, belief. Indeed I should never have suspected this opinion, but from an accidental circumstance, which occurred last winter (1822) when, in shooting at a snipe, I wounded it very slightly, merely fracturing the extreme end of one of its wings: the bird came to the ground, but made many efforts to rise again, and absolutely contrived to raise itself a yard or more repeatedly. By the time I had reloaded my gun the snipe had got to a considerable distance, principally, however, by running. As I approached for the purpose of taking it up, its efforts were repeated, during which, I distinctly observed that it did not rise from its bill, but threw itself into the air in the same manner as a crow or any other bird, by springing from its feet: but in justice I ought to remark, that the circumstance was noticed by a much younger sportsman than myself, with whom I happened to be in company, and but for him, in all probability, the bird would have been pocketed, *sans ceremonie*, and the matter (trifling enough certainly) still have remained enveloped in an ignorance equal to the mistaken fancy which originally invented it. However, while I stood watching the bird's attempts to escape, I noticed another peculiarity in it:—exhausted as it soon became by its impatient efforts to fly, it then tried to get away by running; and, when we approached very near, it repeatedly spread out its little tail like a fan, and erected it after the manner of a turkey cock; at the same time, I was fully convinced, from the length of its legs when it stood erect, that it was not at all necessary for the snipe to put its bill to the ground in order to rise, had I not witnessed its repeated attempts to fly.

"When seen on the ground, the snipe is a very pretty bird; and though its bill, compared with its size, seems out of all proportion,

yet, from the manner in which it carries its head, it presents nothing of that grotesque appearance which the enormous length of its bill would induce one to expect.

"In the course of all my shooting excursions (continues the author) I never recollect observing a snipe on the ground prior to its rising, though I have shot some hundreds. I am inclined to think they are scarcely ever seen till on the wing; and this circumstance, aided by the coincidence of an enormous length of bill, has, in all probability, given rise to the supposition before mentioned."

There is a story recorded of a gentleman of Easthampstead, in Windsor Forest, who very warmly entertained his friend with a description of "a jack snipe he had found upon the heath, which had afforded him *sport for six weeks*; and he did not at all doubt but he would serve him for sport for the remainder of the season, if he was not taken off by a frost; and what was still more convenient, he always knew where to find him."

SOILING. A term denoting the feeding of cattle, under cover, on recent vegetables.

Soiling horses in the house, says Gibson, proves sometimes beneficial, and sometimes hurtful, either when a horse's case has not been rightly judged of, or when the article made use of for soiling happens to be bad of its kind. Geldings are not frequently soiled, but chiefly stallions, because it is difficult to procure good inclosures for them to run single abroad, without much charge and trouble; for two of them will seldom agree long in one place. And therefore I should never advise any one to turn stallions to grass, or soil them in the house, unless they have such complaints as absolutely to require it; for most of the disorders for which stallions are soiled may be remedied by feeding on straw for a time instead of hay, which they will dispense with much easier than geldings: for many of our geldings are apt to grow faint and weak without hay, and few of them can be brought to eat straw readily.

If a stallion happens to be lamed in such manner as to require a place where he may range at pleasure, then an orchard, or some field that is exceedingly well fenced, should be provided for him; but if he has no lameness, but some other disorder, as heat, and eruptions on his skin, that may require soiling, or if geldings or mares are to be soiled for any such complaints, care should be taken to provide such herbage for them as is young, tender, and full of sap, whether green barley, tares, clover, or any thing else the season produces: though green barley is generally preferred to all other food for this purpose;

but then it should be cut before it shoots into the ear, while it is full of sap and moisture; for afterwards it turns dry, and the stem grows tough and hard to digest. The same caution is no less necessary with respect to clover and tares, that these be young, and cut fresh once every day or oftener, otherwise they may easily do more hurt than good; for though a horse is so strong by nature, and more vigorous and active than perhaps any other creature of his size, yet his stomach and intestines are but thin, if compared with those of some other animals of the same bulk, and more easily distended, and therefore he seems to require food of easier digestion than the horned cattle. This indeed is manifest by the choice he makes for himself when at grass, and therefore when the herbage with which a horse is soiled happens to be old, though a good feeding horse will eat it for want of something better, yet I have several times known disorders to follow upon it, by this kind of aliment stopping in the intestines and obstructing them, which has been attended with great inward heat, heaviness of the eyes, reeling, loss of appetite, and other untowardly symptoms, until a plentiful discharge of dung has been procured by emollient glysters. I have seen the *faeces* come away in great clods, very hard, black, and foetid, not unlike what has lain a considerable time mellowing and rotting on a dunghill, in the same manner as happens sometimes to horses that are fed with ryegrass and clover, where they have not sufficient work or exercise to digest it. I have known others, perhaps where the digestive faculty has been stronger, break

out about the neck, rump, and other parts of the body, and sometimes on the limbs, with many other signs of a surfeit, to the great surprise and disappointment of the owner. For all such herbage, when it is divested of its sap, has very soon a tendency to putrefaction, and therefore not only induces a weak blood, but obstruction in the first passages. Hence, those who would succeed well in soiling horses should be situated near to the place where it is cut, that it may be fresh, at least every morning, and leave off when it becomes old and rank, or else go on with some other herbage which is of later growth, till the horse has been sufficiently cooled and purged.

Some horses purge but little in soiling, others a great deal more than what is usual at grass; which may sometimes be owing to the goodness or badness of the herbage, to its being younger or older, fresher or staler, or perhaps sometimes to the difference of the ground on which it grows. However, this may be as often owing to the difference of constitution in horses as to any other cause; for when several horses are soiled together, we see some purge till they fall away and grow lean, some purge very gently, and others scarcely purge at all, though they are all fed alike, and with the same herbage. The same peculiarity is often observable at grass also; which only shews, that some horses are not so easily moved to purge as others, though it is probable those that purge the least stale the most plentifully, which in some cases may be equally advantageous.

When horses lose their flesh much in soiling, they should be taken off to a more solid diet, otherwise they will grow so poor and weak as to require some time afterwards before they recover their flesh. In this there is a great difference between soiling and grazing; for if horses lose their flesh never so much at grass, yet they soon grow fat after the purging, for there they have the benefit of the open air, and great choice, an advantage which horses at soil have not, but are forced to be taken off abruptly to dry food. And therefore when a horse has done soiling, he ought to be continued some time on an open diet, at least a fortnight or three weeks. A little sweet bran may at first be mixed with his oats, and his hay sprinkled with water just when it is put into the rack, and every day gentle exercise, increasing both his food and exercise by degrees. He should also be dressed gradually, and only littered

down in the night, and not to lie constantly on his litter for the first fortnight, all sudden changes from hot to cold, or from cold to hot, being hazardous; after which he may be curried and dressed as usual, and his diet increased, to render him fit for business. Indeed we find some horses so hardy, that they scarce need these precautions; yet no man can well err with reasonable care to prevent accidents, which sometimes happen where they are least expected."

Mr. John Lawrence says, in my opinion, natural grass is superior, and more likely to answer the intended purpose of stable soiling, than tares or any other herbage; from repeated trials I have found, that horses and horned cattle prefer it to all other green meat, without even excepting the so often and highly celebrated lucern.

The great bulk of the artificial grasses is an important object; but no doubt, I conceive, can be entertained of the superior quality of the natural, either green or dry. When the vast consequence of grass is considered, both in relation to quantity and quality, the neglected state of our meadows and pasture lands, in many parts of the country, may well be wondered at, and the question naturally asked, why the simple herbage should not be cultivated with the same care and assiduity as corn: I have known it repay immensely the expense of manure, of pure and good seed brought from a considerable distance, and of the most attentive culture. There cannot be a more improvident practice, whether in a public or private view, than withholding so tenaciously, old, foul, unproductive meadow from the plough; the breaking up of which would pay so abundantly in the first instance, and still more largely in the succeeding grass crops. It is obvious, nothing more is needed, in this case, than to adopt improved methods of laying down to grass.

SOLAND GOOSE. See GANNET, page 365.

SOLE OF A HORSE. That plate of horn which, encompassing the fleshy sole, covers the whole bottom of the foot. The sole ought to be thick and strong, and the shoe of a horse so set upon the hoof as not to bear upon it; for otherwise the sole would be hurt, and not only make the horse lame, but destroy the flesh that separates it from the coffin bone.

It has been the practice of some farriers to take out the sole. It is done without touching the hoof, for taking off the crust makes a hoof cast. A horse that has been

unsoled, it is said, will recover in a month's time.

This custom of the smiths and farriers of drawing horses' soles, in order to relieve the inflammation of the part, and to promote a free perspiration, we could never perceive the least benefit accruing from; as this management leaves such a weakness and tenderness behind, that the poor creatures ever after scarce fail of labouring under an incurable lameness. Nor has *La Fosse*, though he has recommended the practice, produced a single instance of its success. In lieu thereof, of tearing the sole up by the roots, Mr. Wood substitutes the following method, viz.:—in the first place, in order to take off from the tension of the vessels, and lessen the inflammation, blood must be drawn away at the toe of the horse, and above the hoof. After which, apply the subsequent poultice, viz.:

Take Linseed boiled in water to a pulp.

Add goose-grease, tar, and cowdung; and boil them all together to the consistence of a poultice.

Let this be put to the foot, and all round the hoof; and above the coronet apply a cold charge. Where there is no great inflammation, the addition of a little soap to the poultice will very much assist in removing any coagulation of the blood in that quarter.

When the foot is shaped like the back part of an oyster shell, and the sole higher

than the hoof, so that the whole foot is quite filled up on the lower part, it is called a crowned sole by farriers.

SORREL. See COLOUR.

SOUND or SOUNDER. A term used for a herd of wild hogs.

SOUNDNESS.—In a horse, is of such extensive meaning, and infinite importance to the sporting world, to dealers in horses, and to individual purchasers, that it is exceedingly necessary some criterion should be fixed by which its present undefined, very quibbling, and often sinister, interpretation should be more properly and more equitably understood; for want of which, more litigation was, some years ago, carried into the Courts at Westminster, for the emolument and amusement of the gentlemen of the long-robe, than any other subject whatever. The general custom between buyer and seller is precisely this: the horse is sold with or without certain conditions in respect to soundness, and this is done by what is called a warranty on the part of the seller thus: He is warranted perfectly sound, free from vice or blemish, and quiet to ride, or draw, as either or both the latter may happen to be. A horse sold without a warranty, and taken as he is, is then purchased (and the purchase abided by) with all faults, and cannot be returned under any plea whatever, unless he can be proved to have been glandered at the time of purchase, in which state no horse can be legally sold.

SOW. Although animals of the hog kind are not in much request as pointers, yet as one of those creatures was actually taught to find and set game, the circumstance merits at least a casual notice in this place. Toomer, (already noticed in this work,) actually broke a black sow to find game, and to back and stand; and if *Slut* was not so active, she was as steady, as any pointer. The sow, called *Slut*, was bred in the New Forest, and was of that kind which maintain themselves in the forest just mentioned, except when they have young, and then are fed but a few weeks; and the sow in question was given, when about three months old, to be a breeding sow, by Mr. Thomas, to Mr. Richard Toomer, both, at that time, keepers in the forest. From having no young, she was not fed, nor taken much notice of, till about eighteen months old; she was seldom observed near the Lodge, but chanced to be seen one day when Mr. Edward Toomer was there. The brothers were concerned together in breaking pointers and setters, some of their own breeding, and others which were sent to be broke, by different gentlemen; of the latter, although they would stand and back, many were so indifferent, that they would neither hunt, nor express any satisfaction when birds were killed and placed before them. The slackness in these dogs first suggested the idea, that, by the same method, any other animal

might be made to stand, and answer the same purpose as one of those ill-bred and inactive pointers. At this instant, the sow passed by, and was remarked as being extremely handsome : R. Toomer threw her a piece or two of oatmeal roll, for which she appeared grateful, and approached very near ; from that time they were determined to make a *sporting pig* of her. The first step was to give her a name, and that of *Slut* (given in consequence of soiling herself in a bog) she acknowledged in the course of the day, and never afterwards forgot. Within a fortnight, she would find and point partridges and rabbits; and her training was much forwarded by the abundance of both which were near the Lodge. She daily improved, and in a few weeks would retrieve birds that had run, as well as the best pointer ; nay, her nose appeared superior to that of most pointers. They hunted her principally on the moors and heaths. Slut has stood partridges, black game, pheasants, snipes, and rabbits, in the same day, but was never known to point a hare. She was seldom taken by choice, more than a mile or two from the Lodge, but has frequently joined them, when out with their pointers, and continued with them several hours. She has sometimes set a jack snipe when all the pointers had passed it : she would back the dogs when they pointed, but the dogs refused to back her until spoken to ; so that she has been frequently standing in the midst of a field of pointers. In consequence of the dogs not liking to hunt when she was with them (for they dropped their sterns, and manifested symptoms of dislike or suspicion) she did not very often accompany them, except for the novelty of the thing ; or when she accidentally joined them in the forest. Her pace was mostly a trot ; and she was seldom known to gallop, except when called to go out shooting, in which case, she would come home off the forest at full stretch (for she was never shut up, except to prevent her being out of the sound of the whistle or call, when a party of gentlemen had appointed to see her out the next day, and which call she obeyed as readily as a dog) ; and she would express as much pleasure as a dog on being shewn the gun. She always testified great delight when game, dead or alive, was placed before her. She has frequently set a single partridge at forty yards distance, her nose in a direct line to the bird ; after standing some considerable time, she would drop, still keeping her nose in an exact line, and would continue in that position until the game moved : if it took wing, she would come up to the place, and put her nose down two or three times ; but, if a bird ran off, she would get up and go to the place, and draw slowly after it, and when the bird stopped, she would become stationary as before. The two Toomers lived about seven miles apart, at Rhinefield and Broomey Lodges ; Slut has many times gone, by herself, from one lodge to the other, as if to solicit being taken out shooting. She was about five years old, when her master died, and at the auction of his pointers, &c. was included in the sale, and bought in at ten guineas. Sir H. Mildmay having expressed a wish for this animal, she was sent to Dogmersfield Park, where she remained some years. She was last in the possession of Colonel Sikes, and was then ten years old, and had become fat and slothful ; but

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would set game, nevertheless, as well as before. When killed, which was at Bassilden House, Slut weighed seven hundred pounds. Being thus dishonourably slaughtered was an unworthy death for so extraordinary an animal.

SPANIEL. This name is generally applied to the springer, or small land spaniel, as the term setter is to the large land spaniel. There is a great variety of this beautiful little animal, all of which, however, are remarkable for their cheerful activity. They are not calculated for an extensive range; and are therefore very rarely used except for beating covers, in the pursuit of the pheasant or woodcock, and they give notice of their approach to the object by a sort of *whimper*, which increases to a bark as the game springs. They are affectionate and docile, and easily broken or trained: in fact, their whole system of education consists of nothing more than merely to keep them tolerably close to the sportsman; since, if they are suffered to ramble out of gun shot, the game rises at too great a distance, the object is thus defeated which they were intended to promote, and a mortification, much better felt than can be described, must inevitably ensue. Their beauty and affectionate disposition will always excite attention; but they are, after all, perhaps better calculated for coursing than the fowling-piece, as they may be usefully employed in driving a hare from a copse or thicket, while a pointer, or particularly a setter, will answer all the purposes of pheasant or woodcock shooting. However, if sporting on a grand scale, and the utmost pinnacle of perfection, are the objects to be attained, let dogs be kept for the moors or grouse alone, others for the partridge, and the pheasant and woodcock consigned to the small land spaniel or springer.

See how with emulative zeal they strive!
Thread the loose sedge, and through the thicket drive!
No babbling voice the bosom falsely warms,
Or swells the panting heart with vain alarms,
'Till all at once their choral tongues proclaim
The secret refuge of the lurking game.
Swift is their course, no lengthen'd warnings now
Space to collect the scatter'd thoughts allow;
No wary pointer shews with cautious eyes,
Where from his russet couch the bird shall rise:
Perhaps light running o'er the mossy ground,
His devious steps your sanguine hopes confound;
Or, by the tangled branches hid from sight,
Sudden he tries his unexpected flight.
Soon as the ready dogs their quarry spring,
And swift he spreads his variegated wing,
Ceas'd is their cry; with silent look they wait
Till the loud gun decides the event of fate;
Nor, if the shots are thrown with erring aim,
And proudly soars away the unwounded game,
Will the staunch train pursue him as he flies
With useless speed, and unavailing cries.
No open view along the encumber'd field,
To the cool aim will time and distance yield;
But the nice circumstance will oft demand,
The quickest eyesight and the readiest hand;





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Swift as he rises from the thorny brake,
 With instant glance the fleeting mark to take,
 And with prompt arm the transient moment seize,
 'Mid the dim gloom of intervening trees.
 His gaudy plumage, when the male displays
 In bright luxuriance to the solar rays,
 Arrest with hasty shot his whirling speed,
 And see unblam'd the shining victim bleed;
 But when the hen to thy discerning view,
 Her sober pinion spreads of duskier hue,
 The attendant keeper's prudent warning hear,
 And spare the offspring of the future year.

PYE.

Pointers have been tried to be used in woods and covers with bells fixed upon their collars, but the contrivance does not well answer the purpose. The bell of course keeps ringing as the dog moves, and when he makes a point, and becomes motionless the ringing ceases.

The author of the Rural Sports makes the following observations on the subject under consideration:—"Spaniels for pheasant or cock shooting cannot be too strong, too short upon the legs, or have too much courage; the thickness of the covers will oppose, and sometimes almost overpower, this combination of form and spirit. Should the woods be very extensive, when steady from hares, the spaniels cannot well be too numerous; but if given to hunt hares, they disturb the pheasants, who just fly up, and perch upon the low boughs, and the ground of the covert is in vain traversed and beat for birds that are already some yards above it; in short, a spaniel that follows a hare further than whilst in view is never worth keeping. Upon no account accept or keep a spaniel which has any taint of the hound in his pedigree, although for generations back; they will be sure to hunt hare in preference to winged game, and the stock may be crossed everlastingly, may attain beauty, strength, symmetry; yet this latent spark of the harrier will never be extinguished, and they will always show their predilection for hare whenever they have an opportunity, and this generally happens when their goodness is mostly required; namely, in covers where the winged game is preserved, and there, for the most part, hares are also in the greatest plenty. A stronger instance could not well be exhibited than in the spaniels of the deceased Lord Waltham and Mr. Hoare; a road only parted the seats of these two gentlemen, and their gamekeepers frequently shot in the woods together; their dogs were equally handsome; but those of the former would drive hares the day through, and consequently sprung every thing that accidentally laid in their course; while those of the latter no more ran hares than they did sheep; they would indeed find the hares, but follow no farther than they saw them: they were always in their places, twisting around every stub with that agility, and possessed such fineness of nose, that neither woodcock nor pheasant could escape the search. Lord Waltham's spaniel bitches had originally a cross of the beagle, and although this was tried to be remedied by resorting to the best dogs, the tendency to hare could never be subdued."

These observations of the Rev. author of the *Rural Sports* require some little comment. Mr. Daniel's work indeed is huddled together in a strange way; it is made up of materials, which rather display the indolence, than the correct judgment or acute perception, of the compiler: much heterogenous matter is introduced for the purpose, we suppose, of increasing the bulk of these ponderous volumes, the arrangement of which exhibits the most slovenly confusion. In the course of the work, however, we are presented with about half a dozen paragraphs of what, for the sake of distinction, we will call *original remarks*, or the elucidatory observations of the compiler; and what we have quoted above are the ideas of Mr. Daniel expressed with so much confidence, and in such a manner, as clearly to shew that the author himself attaches more than ordinary importance to them. In the first place, it may be justly remarked, that the dog is the natural enemy of the hare; and that all dogs, of whatsoever kind, pursue her, and impetuously too, merely from instinct: even the pointer, so remarkable for its docility, and which will frequently set partridges the first day it is taken into the field, will nevertheless pursue a hare as eagerly as possible, if it happen to rise before him. The reason is evident:—the dog, perceiving the hare to move in the same manner as himself, cherishes the idea of being able to overtake her, and exerts his utmost speed for that purpose; nor would the pointer ever abandon the practice of chasing hares, were he not subjected by discipline to remain steady when they get up. Pointers will chase birds also; and the reason is equally evident why he so much sooner relinquishes the pursuit of feathered game, than the practice of running hares: the birds, by raising themselves into the air, make away from him in a manner that renders his efforts palpably hopeless, and indeed seems to cast a sort of ridicule upon his progressive motion:—hence we see young dogs, before they have been subjected to discipline or restraint, though they pursue birds for some distance at first, yet they very soon shorten the space, and will not pass the first hedge which takes the birds from their view, from a perfect conviction, no doubt, that their utmost efforts cannot be otherwise than completely abortive; when, however, a hare becomes the object, the dog pursues not only to the first hedge, but as soon as he loses sight of her, he puts his nose to the ground, and continues the chase by scent when he is no longer able to carry it on by sight, nor is he very easily convinced that his efforts are unavailing. For the same reason, pointers are never inclined to set hares unless taught to do so; or, at least, to set them steadily; they soon become aware of the object before them, which they are anxious to seize, and the reason why a young dog will frequently become stationary for a few seconds, on such occasions, is, for the purpose of ascertaining, by his powers of smell, the exact spot, if possible, where the hare is situated, and thus be able to seize her with unerring certainty. The pause which young pointers generally make, without any previous tuition, on their approach to partridges, arises from the same motive, viz. a desire to seize the object; and in all probability, the observation of this circumstance originated the idea of the setting dog.

As, however, all dogs are inclined to chase hares, it consequently follows that education becomes indispensable in order to restrain this propensity; and though it may appear strange to those who have never considered the subject, yet we have no doubt that even the harrier, by judicious discipline, might be brought to *set* hares equally as steady as he manifests eagerness in the pursuit of them. A young fox hound, if left to himself, would chase the hare as eagerly as he pursues the fox, though every sportsman knows that the well trained fox hound will not look at a hare; and hence it follows, beyond all doubt, that the superiority of Mr. Hoare's spaniels arose from the superior ability and industry of his keepers; and hence also, it unquestionably follows, that the Rev. gentleman's ideas upon this matter are very crude indeed; that, in fact he has affected to write upon a subject of which he was most profoundly and most egregiously ignorant.

The interesting little dog now under consideration, is a favourite in most countries; and has occasionally been much caressed by royalty itself. The chief order of Denmark, now called the order of the Elephant, was instituted in memory of a spaniel called *Wildbrat*, which had shewed attachment to the monarch when deserted by his subjects. The motto to the order is, "*Wildbrat was faithful.*"

Charles II. was generally accompanied to the council by a favourite spaniel, and a particular strain of the spaniel breed is still distinguished by the name of this monarch. His successor, James II. manifested a similar attachment; and it is reported of him by Bishop Burnet, that being once in danger from a storm at sea, and obliged to quit the ship to save his life, he vociferated, most impatiently—"Save the dogs and Colonel Churchill!"

There is a circumstance, noticed in early English history, seems to prove that one of the landings of the Danes in England was occasioned by the sagacity and affection of a spaniel. Lodebrock, of the blood royal of Denmark, and father of Humbar and Hubba, being in a boat with his hawks and his dog, was unexpectedly driven on the coast of Norfolk by a storm, where, being discovered and suspected as a spy, he was brought to Edmund, at that time king of the East Angles. He made himself known to Edmund, who treated him with kindness, and with whom he soon became a great favourite, particularly on account of his skill and dexterity in the chase. The king's falconer became jealous of this attention, waylaid Lodebrock, murdered him, and concealed the body among some bushes. He was very soon missed at court, and the king manifested great impatience to know what was become of him; when his dog, who had staid in the wood by the corpse of his master, till famine forced him thence, came and fawned on the king, and enticed him to follow him. The body was found, and the murderer ultimately discovered. As a punishment for so atrocious a crime, he was placed alone in Lodebrock's boat, and committed to the mercy of the sea, which, it seems, bore him to the shore which Lodebrock had quitted. The boat was recognised, and the assassin, to avoid the punishment which awaited him, said that Lodebrock had been put to death by order of Ed-

mund ; which exasperated the Danes so much, that they determined on the invasion of England.

The gamekeeper of the Rev. Mr. Corsellis was constantly attended by a spaniel, which he had reared ; and the faithful animal would leave him neither night nor day. Wherever old Daniel appeared, Dash was to be seen ; and the dog was of great service to his master in his nocturnal perambulations. The game, at that season, the dog did not regard in the least, though no spaniel was more active in this respect in the day time. But at night, if a strange foot had entered any of the covers, Dash, by a significant whine, informed his master of the circumstance ; and many poachers were captured in consequence of this singular intelligence. After some years, Old Daniel was seized with a disease which produced a consumption, and ended in death. During the progress of this fatal disorder, while old Daniel was able to crawl about, Dash regularly attended him ; and when at length the old man was confined to his bed, the dog took his station at the foot of it. When death relieved the old man from his sufferings, the dog refused to quit the body, but lay upon the bed by the side of it. For some time the animal would take no food ; and, although, after the burial, he was taken to the hall and caressed as much as possible, yet he took every opportunity of creeping back to the room in the cottage where his old master breathed his last, where he would continue for hours ; from thence he daily visited the grave, and, at the end of fourteen days, the animal died, having absolutely pined away.

SPANISH BARRELS. See FOWL-PIECE.

SPARRING is a ceremony practised with game cocks during the time they are in feeding (or training). When cocks are brought up from their walks, and placed in their pens, some are, of course, too full in flesh ; others, as much deficient : in the judgment of equalizing these different degrees, (by reducing the weight of one, and increasing the substance of the other,) does the art of cock-feeding entirely depend. On every second or third day, during the time they are preparing for the match, each cock has a sparring with an opponent of nearly equal weight with himself ; and this sham fight continues a longer or shorter time, according to the flesh, weight, and wind, of each cock so exercised. For the occasion, and that they may not injure each other, they are equally shielded with muffers upon the parts where their spurs have been sawed off ; and that they may be the better inured to labour, and prepared for difficulty, the ceremony takes place on a truss or two of straw, loosely scattered, that having no firm hold for their feet, they have less power to oppose each other.

SPASM. Any convulsive motion, because it contracts, or pulls, the parts it affects. The term spasm hath been variously used ; in the most common sense it hath signified any preternatural contraction of any particular part of the body, either without any stimulus immediately applied to the part, or which remains after its cause is removed. More properly, spasms are those preternatural contractions which are attended with considerable mobility of the system. Dr. Cullen defines spasm to be preternatural motions of the muscles, or of the muscular fibres ; and under the title of spasmodic affections he includes all the diseases which consist of a preternatural state of the contraction and motion of the muscular or moving fibres in any part of the body.

SPAVIN. A disease on the limbs of horses, which causes them to halt ; and of three kinds, viz. the blood spavin, the bog spavin, and the bone spavin.

Blood spavin is a swelling and dilatation of the vein that runs along the inside of the hock, forming a little soft swelling in the hollow part, and is often attended with a weakness and lameness of the hock.

The cure should be first attempted with restringents and a bandage, which will contribute greatly to strengthen all weaknesses of the joints, and frequently will remove this disorder, if early applied; but if by these means the vein is not reduced to its usual dimensions, the skin should be opened, and the vein tied, with a crooked needle and wax-thread passed underneath it, both above and below the swelling; and the turgid part suffered to digest away with the ligatures: for this purpose, the wound may be daily dressed with turpentine and honey, incorporated together.

In treating the blood spavin, Mr. Denny advises repeated blistering, and afterwards, a compress of folded linen, moistened in the following lotion, and confined by a long bandage:

Take of Sal ammoniac, four ounces;
Acetated ceruse, two ounces;
Vinegar, two quarts;
Water, four quarts. Mix.

The horse, he says, should be allowed only walking exercise for three or four weeks.

Bog spavin is an encysted tumour on the inside of the hough, or, according to Dr. Bracken, a collection of brownish gelatinous matter contained in a bag or cyst, which he reckons to be the lubricating matter of the joint altered, the common membrane that incloses it, forming the cyst: this case he has taken pains to illustrate in a young colt of his own; where he says, when the spavin was pressed hard on the inside of the hough, there was a small tumour on the outside, which convinced him the fluid was within-side of the joint: he accordingly cut into it, discharged a large quantity of this gelatinous matter, dressed the sore with dossils dipped in oil of turpentine, putting into it, once in three or four days, a powder made of calcined vitriol, alum, and bole: by this method of dressing, the bag sloughed off and came away, and the cure was successfully completed without any visible scar.

This disorder, according to the above description, will scarcely submit to any other method, except firing, and then the cyst ought to be penetrated to make it effectual: but in all obstinate cases that have resisted the above methods, both the cure of this and the swellings called wind-galls should be attempted in this manner. If, through the pain attending the operation or dressings, the joint should swell and inflame, foment it twice a day, and

apply a poultice over the dressings till it is reduced.

Bone spavin is a bony excrescence, or hard swelling, growing on the inside of the hock of a horse's leg. Without entering at all into the cause of this disorder, we shall content ourselves with describing the different kinds of it, by their symptoms, and then enter on the method of cure.

A spavin that begins on the lower part of the hock, is not so dangerous as that which puts out higher, between the two round processes of the leg bone; and a spavin near the edge is not so bad as that which is more inward towards the middle, as it does not so much affect the bending of the hock. A spavin produced by a kick or a blow, is at first no true spavin, but a bruise on the bone or membrane which covers it; therefore not of that consequence as when it proceeds from a natural cause: and those that put out on colts or young horses, are not so bad as those that happen to horses in their full strength and maturity; but in very old horses they are generally incurable. The usual method of treating this disorder is, by blistering and firing, without any regard to the situation, or cause whence it proceeds. Thus, if a fullness on the fore part of the hock comes upon hard riding, or any other violence, which threatens a spavin; in that case, such cooling astringents are proper as are recommended in strains and bruises. These happening to colts and young horses, are generally superficial, and require only the milder applications; for it is better to wear them down by degrees, than to remove them at once by severe means.

Various are the prescriptions for the blistering ointment, but the following is particularly recommended by Gibson.

Take of Hog's lard, four ounces;
Quicksilver, one ounce;
Venice turpentine, one ounce;
Spanish flies powdered, a dr.
and a half;
Corrosive sublimate, one dr.
Oil of origanum, two drachms.

Rub the quicksilver down completely, by triture with the turpentine; then add the lard, and, lastly, the other ingredients.

The hair is to be cut from the part as close as possible, and then the ointment applied pretty thick over the skin; this should be done in the morning, and the horse kept tied up all day, without any litter, till night, when he may be untied,

in order to lie down, and a pitch, or any sticking plaster, may be laid over it, and bound on with a broad tape, or bandage, to keep all close. After the blister has done running, and the crust begins to dry and peel off, it may be applied a second time, in the same manner as before; and this second application generally takes greater effect than the first, and in colts and young horses, makes a perfect cure.

When the spavin has been of long standing, it will require to be renewed perhaps five or six times; but, after the second application, a greater distance of time must be allowed, otherwise it might leave a scar, or cause a baldness; to prevent which, once a fortnight or three weeks is perhaps enough: and it may, in this manner, be continued six or seven times, without the least blemish, and will generally be attended with success.

But the spavins that put out on older horses, or full aged horses, are apt to be more obstinate, as being seated more inward; and when they run among the sinuosities of the joint, they are, for the most part, incurable, as they then lie out of the reach of applications, and are arrived to a degree of impenetrable hardness.

The usual method in these cases is to fire directly, or to use the strongest kind of caustic blisters; and sometimes to fire, and lay the blister immediately over the part: but this way seldom succeeds, farther than putting a stop to the growth of the spavin, and is apt to leave both a blemish and stiffness behind; besides the great risk run (by applications of so severe a nature to the tendinous parts about the joints) of exciting violent inflammation, and destroying the limb. The safest and best way, therefore, is to make trial of the blistering ointment above, and to continue it according to the directions laid down, for some months, if found necessary; the horse, in the intervals, being worked moderately. The hardness will thus be dissolved by degrees, and wear away.

Where the spavin lies deep, and runs so far into the hollow of the joint that no applications can reach it, neither firing nor medicines can avail, for the reasons above mentioned. Though bold ignorant farriers have sometimes succeeded in cases of this sort (by men of judgment deemed incurable) by the application of caustics which act very forcibly, we should prefer a properly prepared cautery, made like a fleam, under the direction of a skilful

hand, which may be applied with less danger of injuring either tendons or ligaments. After the substance of the swelling has been properly penetrated by the instrument, it must be kept running by stimulating powders, or mild blistering ointment. Where the spavin lies not very deep in the joint, and the blistering methods will not succeed, the swelling may be safely fired with a thin iron forced pretty deep into the substance, and the part should be dressed as above.

SPAYED BITCH is a bitch upon whom an operation has been performed, by which she is deprived the power of generating a progeny. An incision being made in the flank, midway between the hip bone and the belly, the ovaries are extracted through the orifice, and separated from the parts to which they were united: these being returned, the wound is stitched up, and heals in a few days, without farther trouble or inconvenience.

SPEAR. The feather of a horse, called the stroke of the spear, is a mark in the neck, or near the shoulder, of some barbs, and some Turkish and Spanish horses, representing the blow or cut of a spear, in those places, with some resemblance of a scar. This feather is deemed an infallible sign of a good horse.

SPEED is sportingly applicable to horse, hound, or greyhound; and upon this depends (in a great degree) the estimation in which they are held. It is customary to say, such a horse has great action, or he is in possession of the gift of going.

This is, however, considered applicable only to excellent trotters and hackneys upon the road. Speed is always used in a superior sense, and intended to convey an idea of the greatest rapidity of which the animal is capable, and which enhances his value in proportion to his qualifications. In the art of training for the turf, there are ambiguities of such magnitude, that it is averred by those who have made the practical part their study, that one training groom (from judgment, experience, and observation) shall bring a horse to the post full half a distance better than another, although their speed was considered equal when placed under the racing management of their different superintendants. This is admitted so much, and so truly, an incontrovertible fact, that training grooms have their lights and shades of reputation and celebrity, in an equal degree with the most eminent artists in the universe. Jockeys also, are admitted to possess their different degrees

of excellence, and to so very great and discriminating a nicety, that when matches are lost by some lengths, and for large sums, offers are frequently made to run the match over again for the same money, or to double the stakes, provided the winning jockey is permitted to ride the losing horse. Thus, speed is not always the same, but is evidently dependent upon contingencies, which the utmost human circumspection cannot always either foresee or prevent. The increase of speed with race horses in this country, is very readily admitted to have been great during the last seventy years; and this is impartially attributed to judicious crosses.

SPLENTS, in horses, are hard excrescences that grow on the shank bone, and are of various shapes and sizes. Some horses are more subject to splents than others. Young horses are most liable to them, but they often wear off and disappear of themselves. Few horses put out splents after they are seven or eight years old, unless they meet with blows or accidents.

A splent that arises in the middle of the shank bone is no way dangerous; but those that arise on the back part of this bone, when they grow large, and press against the back sinew, always cause lameness or stiffness, by rubbing against it: the others, except they are situated near the joints, seldom occasion lameness.

As to the cure of splents, the best way is not to meddle with them, unless they are so large as to disfigure a horse, or are so situated as to endanger his going lame. Splents in their infancy, and on their first appearance, should be well bathed with vinegar, or old verjuice, which, by strengthening the fibres, often puts a stop to their growth: for the membrane covering the bone, and not the bone itself, is here thickened; and, in some constitutions, purging and some diuretic drinks will be a great means to remove the thickening and moisture about the limbs, which are often the forerunners of such excrescences.

Various are the remedies prescribed for this disorder; the usual way is to rub the splent with a round stick, or the handle of a hammer, and then to touch it with oil of origanum. Others lay on a pitch plaster, with a little sublimate or arsenic, to destroy the substance. Some use oil of vitriol; some, tincture of cantharides: all which methods have at times succeeded, only they are apt to leave a scar with

the loss of hair. Those applications that are of a more caustic nature, often do more hurt than good, especially when the splent is grown very hard. Mild blisters often repeated, as recommended in the case of a bone-spavin, should first be tried, as the most eligible method. These will generally succeed even beyond expectation; but if they fail, and the splent be near the knee or joint, apply the fire and blister, in the same manner as for the bone-spavin.

Splents on the back part of the shank bone are difficult to cure, by reason of the back sinews covering them: the practice is to bore the splent in several places with an iron, not very hot, and then to fire in the common way, not making the lines too deep, but very close together.

SPORTING. This is a term applicable generally to the diversions of the field, and under which head we shall notice, what (for want of a better term) we will denominate wholesale sporting.

Considerable wholesale slaughter is occasionally made amongst game in England; but it is trifling compared to what takes place sometimes on the Continent. Game formerly abounded in France; and the last day which the unfortunate Louis XVI. enjoyed in the field, he killed five hundred and seventy-two head of game in eight hours—this took place in the neighbourhood of Mendon.

Prior to the French Revolution, the sporting establishment at Chantilli, belonging to the Prince of Conde, was the most extensive as well as the most magnificent in Europe. There were twenty-one miles of park, and forty-eight miles of forest! The horses, when the family were at the place, were upwards of five hundred! The dogs, from sixty to eighty couple. The servants, above five hundred! The annual average quantity of game killed for a period of thirty-two years, amounted to about 30,000 head or pieces; according to a register kept for the purpose, beginning with the year 1748, and ending with the year 1779. But the list of French game is more diffuse, or at least contains a greater variety than the game list of Great Britain, and includes, exclusively of those animals which present themselves to the English sportsman, becfigue, (a small bird, like the wheat ear) oyes d'Egypte, oyes sauvage, tudelles, crapeaux, guynard, wild boars, wolves, &c. &c.

A royal party from Vienna made a sporting excursion into the Bohemian ter-

ritories in the year 1753; they commenced operations on the 29th of August, and continued their diversion for twenty days. The party consisted of twenty-three sportsmen and sportswomen; and the number of shots fired was 116,231, and the game killed 47,950 head. The Emperor fired the greatest number of shots, viz. 9794, of which 978 were in one day. S. A. R. la Princesse Charlotte was in the field every day, on one of which she fired 889 shots. The game consisted of boars, wolves, foxes, stags, roe-bucks, pheasants, partridges, &c.

In 1788, a party of ten persons at the Chateau of Prince Adam Daversperg, in Bohemia, were out five hours on the 9th and 10th of September:—The first day, 6168 shots were fired, and 876 hares, 259 pheasants, 362 partridges, besides quails, were killed. On the second day, 5904 shots were discharged, and 181 hares, 634 pheasants, and 736 partridges, were killed: in addition to these, in the evening of the second day, were picked up, 42 hares, 65 pheasants, and 103 partridges, in all, 210 head, which could not be found in the heat of action.

In Germany, during the month of September, 1797, Prince Lichtenstein, and eleven other gentlemen, killed in one day, when they were out fourteen hours, 3900 head of game.

Hence it is evident that the slaughter of game on the continent far exceeds any thing of the kind in this country. In the year 1796, the late Duke of Bedford and 6 other gentlemen killed, in one day, upon the estates of Mr. Colquhoun, at Writtham, in Norfolk, 80 cock pheasants and 40 hares, besides partridges.

At Houghton, in the same county, the late Duke of Bedford and seven others, killed, in the same space, 165 hares, 42 pheasants, 5 rabbits, a couple of woodcocks, and a brace of partridges.

Many other instances might be brought forward, but, as they are of a similar complexion, they are therefore no way necessary. Numerous instances of uncommon dexterity are recorded, but as the most extraordinary (the exploits of the Toomers) have been already noticed under another head (SHOOTING) we should deem it a waste of time to introduce any thing further on the subject. However, we cannot but regret that wholesale destruction of game, which has of late years become fashionable among the higher circles in this country; and an excess of this kind appears to us (like all other ex-

cesses) attended with much less real enjoyment than might be derived from moderation.

SPORTSMAN. Is the appellation of a man whose partiality for the diversions of the field is universally known. The name of sportsman has ever been considered characteristic of strict honour, true courage, unbounded hospitality, and the most unsullied integrity. While, however, this may be regarded as the general characteristic of a sportsman, there are a few which merit individual notice.

The sportsman of the old school is said to be worn down, and nearly, if not altogether, obliterated: "it was the truly independent country Squire of three or four hundred a year, who plainly appeared in his drab or plush coat, with large silver buttons, and seldom without boots. His hours of leisure and relaxation were dedicated, principally, to the sports of the field, and his travels never exceeded the distance of the county town, and that only at assizes and sessions, or to attend an election. A journey to London from a remote part of the kingdom was then considered almost as great an undertaking, as voyage to the East Indies is at the present time. In the duties of life, he was every way an example to his neighbours, and every description of people who surrounded him; acting conscientiously, he conceived his presence at church could not be dispensed with, and therefore he never failed to appear. Cards he never played at, or permitted, except at Christmas; when he also exchanged his usual beverage of ale for a bowl of potent brandy punch, garnished with toast and nutmeg." This is all well enough in its way; but as there is well known to be a propensity in some to admire and prefer every thing that savours of antiquity, so we need not be surprised that a jaundiced preference is given to the old school of sporting. In fact, like every thing else, the diversions of the field have experienced a regular progressive improvement; and although in some matters they may be occasionally overstrained, yet they must be wilfully blind, or very weak sighted indeed, who do not perceive the superior beauties of modern sporting.

We have an excellent portrait of a sportsman of the old school from the pen of the Lord Chancellor Shaftesbury. But while we profess ourselves advocates for fair play, we must in justice remark that the picture we are about to introduce was not a general likeness of sportsmen of the

same period, but one of those eccentric characters who occasionally present themselves in all ages :—"In the year 1638 (says the noble author) lived Mr. Hastings, at Woodlands, in the county of Southampton; by his quality, son, brother, and uncle to the Earls of Huntingdon. He was, peradventure, an original in our age, or rather, the copy of our ancient nobility in hunting, not in warlike times. He was very low, strong, and active, with reddish flaxen hair. His clothes, which, when new, were never worth five pounds, were of green cloth. His house was perfectly old fashioned, in the midst of a large park, well stocked with deer and rabbits; many fish ponds, a great store of wood and timber, a bowling green in it, long, but narrow, full of high ridges, never having been levelled since it was ploughed; round sand bowls were used, and it had a banqueting house, like a stand, built in a tree.

Mr. Hastings kept all manner of hounds, that ran buck, fox, hare, otter, and badger; hawks, both long and short winged. He had all sorts of nets for fish; a walk in the New Forest, and the manor of Christchurch: this last supplied him with red deer, sea, and river fish; and, indeed, all his neighbour's grounds and royalties were free to him, who bestowed all his time on these sports, but what he borrowed to caress his neighbours' wives and daughters, there not being a woman in all his walks, of the degree of a yeoman's wife (and under the age of forty) but it was extremely her own fault if he was not intimately acquainted with her. This made him popular, always speaking kindly to the husband, brother, or father, and making them welcome at his mansion, where they found beef, pudding, and beer, and a house not so neatly kept as to shame him or his dirty shoes; the great hall strewed with marrow bones, full of hawks, perches, hounds, spaniels, and terriers; the upper side of the hall hung with the fox skins of this and the last year's killing, here and there a martin cat intermixed, with gamekeepers' and hunters' poles in abundance. The parlour was a large room, as properly furnished; on the hearth, paved with brick, lay some terriers, and the choicest hounds and spaniels. Seldom less than two of the great chairs had litters of kittens in them, which were not to be disturbed, he always having three or four cats attending him at dinner; and, to defend such meat as he had no mind to part with, he

always kept order with a short white stick that he kept lying by him for that purpose.

The windows, which were very large, served for places to lay his arrows, crossbows, and other such accoutrements. The corners of the room were full of the best chosen hunting and hawking poles; an oyster table at the lower end, which was in constant use twice a day all the year round, for he never failed to eat oysters before dinner and supper through all seasons. In the upper part of the room were two small tables and a desk; on the one side of the desk was the church bible, and, on the other, the book of martyrs. Upon the tables were hawks' hoods, bells, &c. Two or three old green hats with their crowns thrust in, so as to hold ten or a dozen eggs, which were of the pheasant kind of poultry; these he took much care of and fed himself. Tables, boxes, dice, and cards, were not wanting; and in the holes of the desk was a store of old used tobacco pipes. On one side of this end of the room, was the door of a closet, wherein stood the strong beer and wine, which never came thence but in single glasses, that being the rule of the house exactly observed; for he never exceeded in drinking, nor ever permitted it.

On the other side, was the door into an old chapel, not used for devotion. The pulpit, as the safest place, never wanted a cold chine of beef, venison pasty, gammon of bacon, or a great apple pie with a thick crust extremely baked. His table cost him but little, although it was well supplied. His sports furnished all but beef and mutton, except on Fridays, when he had the best of salt as well as every other fish he could get, and this was the day on which his neighbours of the first quality visited him. He never wanted a London pudding, and always sung it in with 'my pert eyes therin a.' He drank a glass or two at meals, very often syrup of gilliflower in his sack, and always a tun glass stood by him, holding a pint of small beer, and this he often stirred with rosemary. He was affable, but soon angry, calling his servants fools and cuckoldy knaves, in one of which he often spoke truth, to his own knowledge, and sometimes both of the same person. He lived to be one hundred years of age, never lost his eye sight, but always read and wrote without spectacles, and got on horseback without help; until past four score years old, he rode up to the death of a stag as well as any man in existence."

Old Draper, the Nimrod of his day, was a real sportsman, but particularly a fox hunter, to which he dedicated the whole of a long life. "In the old, but now ruinous, mansion of Berwick Hall, in the East Riding of Yorkshire, once lived the well known William Draper, Esq. who bred, fed, and hunted, the staunchest pack of fox hounds in Europe. Upon an income of only £700 per annum, he brought up, creditably, eleven sons and daughters; kept a stable of excellent hunters, a kennel of true bred fox hounds, besides a carriage, with horses suitable for my lady and her daughters. He lived in the old honest style of his country, killing every month a good ox of his own feeding, and priding himself on maintaining a substantial table, but with no foreign kickshaws. His general apparel was a long dark drab hunting coat, a belt round his waist, and a strong velvet cap on his head. In his humour, he was very facetious, always having some pleasant story, both in the field and in the hall, so that his company was much sought after by persons of good condition, and which was of great use to him in the subsequent advancement of his own children. His stables and kennels were kept in such order, that sportsmen observed them as schools for grooms and huntsmen, who were glad to come there without wages, merely to learn their business. When they had obtained proper instruction, he recommended them to other gentlemen, who wished for no better character than a recommendation from 'Squire Draper. He was always up, during the hunting season, at four in the morning, mounted on one of his nags at five o'clock, himself bringing forth his hounds, who knew every note of their old master's voice. In the field he rode with judgment, avoiding what was unnecessary, and helping his hounds when they were at fault. His daughter Di, who was equally famous at riding, used to assist him, cheering the hounds with her voice. She died at York in a good old age; and what was wonderful to many sportsmen who dared not follow her, she died with whole bones, in her bed.

After the fatigues of the day, which were generally crowned with the brushes of a brace of foxes, he entertained those who would return with him, and which was sometimes thirty miles' distance, with old English hospitality. Good old *October* was the liquor drank; and his first fox hunting toast was, '*All the brushes in*

Christendom.' At the age of eighty years, this gentleman died, as he chiefly lived, for he died on horseback. As he was going to give some instructions to a friend, who was rearing up a pack of fox hounds, he was seized with a fit, and, dropping from his old favourite pony, expired! There was no man, rich or poor in his neighbourhood, but what lamented his death; and the *foxes* were the only things that had occasion to be glad that 'Squire Draper was no more!'

A picture of a somewhat different colouring and more modern date, is presented in Mr. Carter, a gentleman who possessed a respectable estate near Witney, in Gloucestershire, and could boast the best hounds and horses in that part of the country. In his dress, manners, and conversation, the huntsman and whipper-in where the evident models of his imitation. Amidst the intercourse of friendship, and in the endearments of domestic life, the language of the chase was never forgotten; even his nearest relations were esteemed only in proportion to their attachment to his darling amusement: those who were anxious for his affections, had no hopes of success, but by riding themselves into them over five barred gates; in short, throughout the surrounding country, *Fox-hunting Carter* was the epithet by which he was universally known and distinguished. When he was one day endeavouring to leap a gate of unusual height, the leg of his favourite hunter caught between the upper bars, threw him on the other side, and tumbling with all his weight upon him, fractured one of his legs in such a manner as to leave the sufferer only the dreadful alternative of amputation or death. Mr. Carter was not long in deliberating upon the choice:—recollecting that he never should be able to keep the saddle at a fox chase with a wooden leg, he swore that he came into the world with two legs, and with two he would go out of it. In this determination he persevered, and, after languishing for some time, he departed this life, as he would have ended the pursuit of a fox, with the exulting shout of the death halloo; having previously bequeathed his estates (except an annuity of two hundred pounds to his wife) to his favourite nephew, for no other reason than because whilst a boy, he used to follow him through all the dangers and delights of the chase.

A farmer of Goodleigh, in Devonshire (Mr. Henry Stebbing) who had collected

as many pads of foxes, of which he had been in at the death, as covered the stable door and door posts, was, at his own particular request, buried with a pad in each hand; and when interred in the parish church of Stoke, he was attended by all the huntsmen and whippers-in belonging to the different packs with which he had hunted, equipped in their proper hunting dress.

A passion for the chase does not, like many other inclinations, wear away with years. Sportsmen seldom give up the pursuit while they have strength sufficient to creep into the fields. The late Sir John Hill, of Hawkstone Hall, Shropshire, followed the fox hounds till within a few months of his death, and he did not depart this life till he had attained something more than ninety years of age—we believe ninety-three.

Earl Fitzwilliam, though upwards of eighty, still goes out with his own fox hounds; and the Marquis of Cleveland, nearly as old, hunts his own hounds. Many other similar instances might be produced. Hunting, in fact, is a passion which seems scarcely ever to fade or to become extinct.

SPRAIN or STRAIN, in whatever part of a horse, is a distension of the muscles, and proceeds from either slips or blows, or from hard riding.

It is necessary to observe, that, in all strains, the muscular or tendinous fibres are overstretched, and sometimes ruptured or broken. To form a true idea of these disorders, let us first consider every muscle and tendon as composed of elastic fibres, which have a proper power of their own, to contract and extend themselves; and that this function has been forcibly impaired.

In all violent strains of either tendon or muscles, whatever opinion we may entertain of bathing and anointing with favourite nostrums, which often succeed in slight cases, where, perhaps, bandage alone would have done; yet it is the latter, with proper resting the relaxed fibres till they have thoroughly recovered their tone, that are the chief things to be depended on; and frequently some months are necessary for effecting the cure.

All violent strains of the ligaments, which connect the bones together, especially those of the thigh, require time, and turning out to grass, to perfect a recovery. External application can avail but little here; the parts affected lying too deep, and so surrounded with muscles, that

medicine cannot penetrate to them. The sooner, in these cases, the horse is turned out to grass, the better, as the gentle motion in the field will prevent the ligaments from thickening, and, of course, the joint itself from growing stiff; nor do we believe that firing, so commonly practised in this case, is of half the consequence as rest, and turning out for a considerable time, which, by the bye, is always advised at the time the horse is fired.

When a horse's shoulder is over-strained, he does not put out the leg as the other; but, to prevent pain, sets the sound foot hardly on the ground, to save the other; even though he be turned short on the lame side, which motion tries him the most of any. When trotted in hand, instead of pulling his leg forwards in a right line, he forms a circle with the lame leg; and when he stands in the stable, that leg is advanced before the other. In order to cure this lameness, first bleed him, and let the whole shoulder be well bathed three times a day with hot verjuice, or vinegar: but if the lameness continue without swelling or inflammation, after resting two or three days, Bartlet orders the muscles to be well rubbed for a considerable time with opodeldoc, or either of the following mixtures.

Take of Camphorated spirit of wine,
two ounces;
Oil of turpentine, one ounce.
Mix.

This proportion will prevent the hair coming off.

Or,
Take of the best vinegar, half a pint;
Spirit of vitriol,
Camphorated spirit of wine, of
each two ounces. Mix.

When the shoulder is very much swelled, it should be fomented with woollen cloths (large enough to cover the whole) wrung out of hot verjuice.

A rowel in the point of the shoulder in this case does great service, especially if the strain has been very violent, and the swelling very large: but as to boring up the shoulder with a hot iron, and afterwards inflating it, it is both a cruel and absurd treatment; and the pegging up the sound foot, or setting on a patten-shoe, to bring the lame shoulder on a stretch, is a most preposterous practice, and directly calculated to render a horse incurably lame; for it can only be necessary in cases the very opposite to this, where the muscles have been long contracted, and

we want to stretch them out. When the parts are in a state of inflammation, *i. e.* when the accident is recent, poultices, if they can be applied, are very effectual, after bathing with hot vinegar, or verjuice. These are to be preferred greatly to cold charges, which, by drying soon on the part, keep it stiff and uneasy. Let them be prepared with linseed or oatmeal, rye-flour, or bran, boiled up in vinegar, strong beer, or red wine lees, with just lard enough to prevent their growing stiff. When, by these means, the inflammation and swelling are brought down, we may bathe the part twice a-day with either of the above mixtures, opodeldoc, or camphorated spirits of wine; and roll the part three or four inches both above and below, with a strong linen roller, of about two fingers width, which will contribute not a little to the recovery, by bringing up the relaxed parts; and perhaps that strengthening is more to be depended on than the applications themselves.

In strains of the coffin-joint, that have not been discovered in time, there will occur such a stiffness in the joint, that the horse will only touch the ground with his toe, and the joint cannot be played with the hand. The only method here is repeated blistering, and then firing superficially.

For strains in the back sinew, the knee, and fetlock, Mr. Denny says "Take away three or four pints of blood from the plate vein; and, for the first three or four days, the only necessary application is a Goulard poultice, sufficiently large to cover the limb from the knee to the hoof. This may be secured by a fillet attached to the bag, and passing over the shoulder. Goulard's water may be frequently added to the poultice. Or, instead of the poultice, a flannel roller may be applied round the leg, and kept constantly moistened with the following embrocation:

Take of Crude sal ammoniac, two oz.

Common vinegar, one pint;

Water, two quarts;

Extract of lead, two ounces.

Mix them.

When the inflammation is removed, he says, the parts may be strengthened with camphorated embrocation. Walking exercise should be allowed, and increased as the animal recovers. And should any swelling remain, after the lameness is removed, the cure may be completed by applying a mild blister, and repeating it, if necessary.

Strains of the hinder extremities are,

of course, to be treated in the same manner."

SPRINGER. See SPANIEL.

SPUR is the well known weapon with which the heel of the horseman is armed to enforce his authority.

SQUARE. In the manege, is used for working in a square. The piste or tread of a volt, instead of being always circular, and traced upon a circumference round a centre, ought to be imagined as if it formed four straight equal lines laid in a square, and equally removed from the centre, or the pillar, which represents it in the middle of the manege ground; so that to work in a square, is to ride along each of these four lines, turning the hand at every corner, and so passing from one line to another.

SQUIRT. A chesnut horse, foaled in 1732, bred by William Metcalf, Esq. near Beverley, Yorkshire; and sold to the Earl of Portmore.

Squirt was got by Mr. Bartlet's Childrens, out of the Snake mare that was the dam of Shock.

At Newmarket in Oct. 1737, Squirt, 8st. 7lb. beat Lord Lonsdale's Sultan, 8st. 2lb. four miles, 200gs. At Newmarket in April, 1739, at 8st. 5lb. he beat the Duke of Bridgewater's Poker, 8st. 1lb. four miles, 200gs. After which he won 40gs. at Epsom, beating Mr. Grisewood's Ladythigh; 50gs. 10st. at Stamford, beating Mr. Major's Miss Tippet; and 30l. (10st.) at Winchester, beating Mr. Grisewood's Ladythigh, and two others. In 1740, he won the give-and-take plate at Salisbury, beating Sir Robert Fagg's Pretty Sally, and Mr. Hearley's Gainsborough.

Squirt became a stallion, and when in Sir Harry Harpur's stud, was ordered to be shot, but when Miles Thistlewaite was leading him out to the dog-kennel, he was begged off by Sir Harry's groom; after which, he got Marsk, Syphon, Mr. Pratt's famous old mare, that bred Pumpkin, Maiden, Purity, &c.—Marsk was sire of Eclipse, &c. and Syphon, got Sweetbriar, Sweetwilliam, Tandem, Daisy, &c.—Squirt was sire of several good runners, though he covered few well bred mares.

STABLE, THE. In the first place it may be observed, with respect to a stable, that it should be formed or regulated according to the description of horse which it is intended to contain, since high bred or blood horses cannot endure cold like the cart horse; a circumstance for which

an obvious reason presents itself; namely, that as his coat is much thinner and finer, he is consequently much more susceptible of the chilling atmosphere, which may be said to predominate in this country. It is asserted by many (and perhaps truly) that warm stables are productive of disease; but I know from experience that, unless the atmosphere of the stable be something more than fifty degrees in winter, it will be vain to expect either a fine coat or good condition: warmth is certainly very congenial to blood horses notwithstanding all that has been urged against it by the prejudices of the old school. It is said that horses kept in a warm stable are very liable to "*catch cold*;" surely then a human being who has been sitting over a good fire in a warm comfortable room, must run a similar, if not a greater, risk. If a stable be kept very cool in winter, the horse will not derive so much benefit from his food, he will not rest so well, as if he reposed in a warm temperature; and his coat will stare. At the same time, the stable should be well ventilated, and the ventilators placed at, or as near as possible to, the top, as the foul air uniformly ascends; and when the horses are taken out for exercise, I would have the doors and windows thrown open, by which means the stable will be completely purified.

A very good method of ventilation is by tubes or funnels, one or more, according to the size of the stable, which should be let into the ceiling by a larger end of twelve or fifteen inches square, which should narrow as it ascends, so as to become about four or five inches at its summit; this should pass out at the roof of the stable, and should be covered with a raised cap, to prevent the wet from descending. This method I consider much superior to ventilators, which revolve rapidly on their own centres; as the latter occasion a considerable draught of air. Windows should be so constructed as to admit air, when necessary, but not directly upon the horse: its current should be so broken, as to disperse the air equally throughout the stable. No stable should be formed without windows, since light is essentially necessary to its inmates. If otherwise, when the horse is taken suddenly out of the stable, the light causes a painful sensation: his imperfect vision may make him stumble or start; and although the light of the stable should not be very brilliant, but rather dusky, yet it should be suf-

ficient to prevent the ill effects arising from a sudden transition from darkness to light. The ceiling of the stable should be kept in good repair, in order to prevent the dust from the hayloft from falling upon the horses, and perhaps getting into their eyes; as also to prevent the impure air, which always ascends, from lodging in the hay. But indeed, both the hay and corn would be much better by being kept out of the stable altogether till they are required for consumption. The stalls ought to be six feet wide; and, when they are less, horses should never be turned round in them, but backed out, or serious mischief may ensue. The best mode of forming the stalls is to have them something more than six feet wide, and contrived in such a way that they can be converted into loose boxes at pleasure. Some of the stalls, at least, upon this plan are highly advisable, as they will be found extremely useful in cases of sickness, as well as on other occasions.

Bars or bails are very unsightly, and are objectionable for several reasons: the horses can play with each other when so superficially separated, as well as kick; moreover, as it generally happens that one horse will eat faster than another, the slow feeder is thus deprived of his proper share of corn. Bars are seldom seen, except in stables where stage-coach horses are kept. More horses may be, in this manner, crowded into the same space, than if divided from each other by regular partitions; (which is, of course, the principal reason for using bars;) but the animals are rendered much more uncomfortable.

Some writers, in speaking of stables, hold the following language:—"The acclivity of the generality of stalls is also a very serious objection to them, for they occasion a horse to stand unequally; and an undue proportion of weight is thrown on the hinder extremities, and the appui, or bearing of both hind and fore, becomes incorrectly placed; by which the flexor tendons, or back sinews, are put on the stretch to correct this departure from the true perpendicular of the limbs; to which circumstance, there is little reason to doubt, many of the lamenesses of horses are attributable." Now, I must honestly confess, that I never saw a stable the stalls of which were calculated to produce any such effects. A gentle slope is highly to be recommended for the stalls of all stables, which, I feel well convinced, is attended with the most beneficial effects

to the general health of the horse without placing his back sinews upon any thing like an injurious stretch. I am aware that the propagation of this ill-digested notion has induced some persons to form the floor of the stalls with an inclination towards the middle of the stall, and a small grating in the centre to receive the urine, the effluvium from which, could not fail to have an injurious influence upon the health of a horse, while for a mare, such a formation would appear entirely useless. The stalls, therefore, should be made with a gentle slope, and so contrived either with gratings or gutters, or both, so as to carry the urine completely away, if possible. In fact, cleanliness, in its most extended meaning, should be observed in every stable.

In regard to allowing horses to stand on litter during the day, there is some diversity of opinion. Litter entices a horse to lie down during the day, which, when in hard or constant work, is highly desirable; but care should be taken to remove the stained litter, and, indeed, all filth, from under him. But cases are not wanting, where constant standing upon litter produces swelling in the horse's legs; and, consequently, for an animal of this description, such a practice cannot fail to be highly injurious: it therefore follows, that, in this respect, the groom must be governed by circumstances; and a little attention will enable him to adopt the correct system. Generally speaking, I am no advocate for litter remaining under the horse during the day: it is perhaps the first and most fruitful source of contraction in the feet; and is said by some to bring on this ruinous affection with more certainty than the hardest work. Horn has a natural tendency to contraction wherever heat is applied; and the feet, by being more hotly placed in litter than on the bare and moist ground, the horny hoof is, consequently, more liable to contract. I have no objection to place a little litter under the hind feet, which are not inclined to contraction; but the case is very different with the fore feet.

The rack should be placed upright in preference to the general sloping position, and less elevated than they are usually found. When the rack is placed very high, the horse's neck is almost continually on the stretch, which must have a tendency to congest the blood within the head, and perhaps to lay the foundation for disease. If we reflect upon the matter, we shall easily perceive that such a

mode is directly the reverse of the method by which nature intended the horse should receive his food; and although we have forced this highly elegant quadruped into a sort of artificial mode of life, yet, in all our treatment of him, nature should never be altogether forgotten.

A horse should not be taken into the stable while he is very warm; but should be moved about gently till he becomes cool. The legs and feet should be washed clean, and rubbed completely dry; the feet picked out: a box attached to the stable will, for such operations, be found a very convenient appendage.

The appointments of the horse.—In attending to these, some things are essential to the health of the horse, such as the airing of every thing belonging to him. When a horse comes in hot from a journey, his saddle must have absorbed a very considerable quantity of moisture, and consequently should be well dried and aired. A similar observation will sometimes apply to his body clothes, &c. But, in fact, it only requires a little common sense to perceive that any thing damp applied to the body of the horse can scarcely fail to be attended with unpleasant consequences. Saddles, bridles, and indeed every thing appertaining to the horse should be kept as clean as possible; and, if attended to in proper time, are much less trouble than might be hastily supposed. When a horse comes in from hunting, or from a fatiguing journey, and, indeed, generally speaking, upon all occasions, the groom should not leave him till he is thoroughly dry, clean, and rendered as comfortable as possible.

Either in the stables, or very contiguous to them, a place should always be provided for the reception of harness and other articles of the same kind; and likewise a suitable and well-secured place for a corn-bin. If the stable be small, and it is, of course, most convenient to have the corn-bin in the room above, it should be so constructed as that the proper feed may be regulated and received from a spout in the lower part of the stable. This method saves much time and trouble in going to the bin, measuring, &c. as well as in many instances much corn.

Hitherto I have had in view, stables for hunters and the superior kinds of horses; but for husbandry horses and others, a more economical mode may be adopted. The stalls, for instance, may be reduced in width to four feet and a half or five feet. The divisions between them

should be high, so that strange horses may not see each other. And where stallions are kept, or young horses required to be left loose in a stall, they should be so inclosed as to be incapable of doing mischief. For these purposes, one or more stalls may be sparred to the top, or doors provided, which may be hung to the back posts of the stable. Where this last method is followed, the stalls serve extremely well for keeping different mares and their foals separate from others.

Stables.—In the construction and fitting up of stables for farm horses, it is not necessary to attend so particularly to elegance as in those which are intended for the reception of horses of other descriptions. It is, perhaps, sufficient to provide them comfortable and convenient habitations: working horses should not, however be kept in such low dirty hovels as they frequently are; as nothing tends so much to the keeping of these animals in health, as their having dry, clean, and well ventilated stables. They should, therefore, be constructed in such a manner as to keep out the severe cold of winter and the intense heat of summer, and be provided with proper drains for conveying away every kind of moisture and nastiness. The number and size of the windows should be proportioned to the extent of the stable, and be so contrived as to open and shut at pleasure. When it is necessary to save expense, shutters may be adapted to, and suspended in, the windows by iron pins, on which they may be turned as occasion requires.

In the contriving of racks and mangers, regard should be had to economy and convenience. The common and too general mode of making them extend quite across the upper end of the stall, is not only a bad, but by no means a cheap, method of constructing them. Besides, in order to save trouble, servants are extremely apt to stuff racks full of hay, however large they may be; from which various bad consequences proceed, and much hay is wasted and destroyed, by being either pulled down and mixed with the litter, or trodden under the feet of the horses.

The pernicious effects resulting from the practice of suffering horses to be continually stuffing themselves with hay, are well known to those who are acquainted with the proper management of such animals, under whose directions they are never allowed to have much hay in their racks at a time. There is also another disadvantage in this plan of fitting up

stalls, especially to farmers, as it ought to be their object to preserve every thing;—the hay-seeds are totally lost, which, if good, and carefully secured, might be of great utility and value. By the racks having so much inclination outwards, the seeds are also extremely apt to fall into the horses' ears and eyes, which often produce disagreeable effects. From these considerations it would seem that racks should have a more perpendicular direction than is commonly given them, not having a space of more than fourteen or sixteen inches from the wall; the bottom should also be sparred, in order to let the seeds fall down below, whence they may be removed by a sliding shutter or small door. The same advantages may also be obtained by leaving niches in the walls for the racks, on which plan the spars will be equal with the insides of the walls. If the niches and racks be made in the middle of the stalls, two feet or two feet and a half wide, they will in most cases be sufficient; they should, however, be carried down low enough to admit of a small box or drawer being placed under them, for the reception of the hay-seeds. Racks of this sort may likewise be placed in the corners of the stalls, and be made in such a way as that one niche may serve two stalls. They may also be placed in the angles of the stalls without having any niche, and be made of a semicircular form. But in whatever way they are made, there should constantly be a division betwixt them, which is, probably, best made of deal. By this means the farmer will be able to know, with precision, what each horse eats; which cannot be done in any other way. Where the racks are put in the corners of the stalls, it may, perhaps, be more advantageous to have them straight than circular; but in whichever way they are formed, the farmer should always have a hatch fixed for each stall, as by that means a great deal of time may be saved in feeding his horses.

It is equally unnecessary in the making of the manger to have it the same width of the stall; as a box or drawer sixteen or eighteen inches long, and twelve or fourteen inches wide, will answer every purpose. It should be so contrived that it may be readily taken out and cleaned whenever it is fouled or becomes furrowed with dirt. With the fixed mangers this can never be done, however they may be daubed by the saliva issuing from the horse's mouth during the time of feeding, or the discharges

proceeding from his nostrils when labouring under colds or other more dangerous disorders.

There is another method of making stalls, which, as being cheaper and more economical, deserves to be noticed: on this plan, the stable has neither racks nor mangers; the head of the stall is boarded about three feet from the ground, having a space of about two feet from the wall, in which the hay is to be deposited, the horse pulling his hay from below, instead of drawing it from above; which is not only more natural, but prevents the waste of hay, much of which drops down and is lost when the horse eats from the rack; but, by this method, whatever falls is again received among that from which it was taken. But even on this construction it will be necessary to have the bottom sparred, within eight or ten inches of the ground, and a box, hopper, or hay-manger, and drawer, so contrived as to

receive the seeds of the hay; where there are double stalls, the boxes may be divided in the middle. Single stalls, where they can be conveniently made, should, however, always be preferred, as more safe.

All stables should be white, or lime-washed every year; the early part of summer being the time best calculated for the operation. And, in every thing relative to horses, let cleanliness be the order of the day.

STABLE STAND. A term used in the forest law, when a man is found at his stand in the forest, ready to shoot at deer, or else standing close by a tree with dogs ready to slip. This is one of the four evidences or presumptions, by which a man is convicted of intending to steal the king's deer, the other three being back-berond, bloody-hand, and dog-draw.

STAG. If we compare the stag and the bull as to shape and form, few animals are more unlike; and yet, if we examine their internal structure, we shall find a striking similitude between them. Indeed, their difference, except to a nice observer, will scarcely be perceptible. All of the deer kind want the gall bladder; their kidneys are formed differently; their spleen is also proportionably larger; their tail is shorter; and their horns, which are solid, are renewed every year. Such are the slight distinctions between two animals, one of which is amongst the swiftest, and the other, one of the most sluggish, of the brute creation.

The stag, generally speaking, is one of those innocent and peaceful animals that seems made to embellish the forest, and animate the solitudes of nature. The easy elegance of his form, the lightness of his motions, those large branches that seem made rather for the ornament of its head than its defence, the size, the strength, and the swiftness of this beautiful creature, all sufficiently rank him among the first quadrupeds, among the most noted objects of human curiosity.

The stag or hart, whose female is called a *hind*, and the young a *calf*, differs in size and in horns from the fallow deer. He is much larger, and his horns are round; whereas, in the fallow kind, they are broad and palmated. By these the animal's age is known. The first year the stag has no horns, but a horny excrescence, which is short, rough, and covered with a thin, hairy skin. The next year the horns are single and straight; the third year, they have two antlers; three, the fourth; four, the fifth; and five, the sixth: but this number is not certain, for sometimes they have more and often less. When arrived at the sixth year, the antlers do not always increase; and although the number may amount to six or seven on each side, yet the animal's age is then estimated rather from the size of the antlers, and the thickness of the branch which sustains them,



STAG HUNTING, OVER A PRECIPICE.

than from their variety. These horns, large as they seem, are, notwithstanding, shed every year, and new ones come in their places. The old horns are of a firm solid texture ; but while young, nothing can be more soft and tender : and, the animal, as if conscious of his own imbecility at these times, instantly, upon shedding his former horns, retires from the rest of his fellows, and hides himself in solitudes and thickets, never venturing out to pasture, except by night. During this time, which most usually happens in the spring, the new horns are very painful, and have a quick sensibility of any external impression. When the old horn is fallen off, the new does not immediately appear, but the bones of the skull are seen covered only with a thin transparent periosteum or skin. After a short time, however, this skin begins to swell, and to form a soft tumour, which contains a great deal of blood, and which begins to be covered with a downy substance that presents the feel of velvet. This tumour every day buds forward from the point like the graft of a tree ; and rising by degrees from the head, shoots out the antlers on either side, so that, in a few days, in proportion as the animal is in condition, the whole head is completed. The blood vessels supply the growing horns with nourishment. As they creep along the sides of the branches, the prints of them are marked over the whole surface ; and the larger the blood vessels, the deeper these marks are found to be ;—hence arises the inequality of the surface of the deer's horns, which are furrowed all along the sides, the impressions diminishing towards the point, where the substance is as smooth and as solid as ivory. But it ought to be observed that this substance, of which the horns are composed, begins to harden at the bottom, while the upper part remains soft, and still continues to grow ; whence it appears that the horns grow differently in deer from those of sheep or cows, in which they are always seen to increase from the bottom. However, when the whole head has received its full growth, the extremities then begin to acquire their solidity ; the velvet covering or bark, with its blood vessels, dries up and then begins to fall ; and this the animal hastens by rubbing its antlers against every tree it meets. In this manner, the whole external surface being stripped off by degrees, at length the whole head acquires its complete hardness, expansion, and beauty.

It is said, that if a stag be castrated when its horns are fallen off, they will never grow again ; and, on the contrary, if the same operation be performed when they are on, they will never fall off. If only one of his testicles be taken out, he will want the horn on that side ; if one of the testicles be only tied up, he will want the horn on the opposite side.—The horns appear, indeed, to resemble a vegetable substance grafted upon the head of an animal ; and they will increase, or otherwise, according to the goodness of the pasture, and the ease and security which the creature enjoys. Like a vegetable, they grow from the extremities ; like a vegetable, they are for a while covered with a bark that nourishes them ; like a vegetable, they have their annual production and decay ; and a strong imagina-

tion might suppose, that the leafy productions on which the animal feeds, go once more to vegetate in his horns.

The stag is usually a twelvemonth old before the horns begin to appear, and then a single branch is all that is seen for the year ensuing. The old stags usually shed their horns first, which generally happens towards the latter end of February or the beginning of March. Those of the second head (namely, such as are between five and six years old) shed their horns about the middle or latter end of March; those still younger, in the month of April; and the youngest of all, not till the middle or latter end of May. The horns of the stag generally increase in thickness and in height, from the second year of its age to the eighth. In this state of perfection they continue during their vigour of life; but as the animal grows old, the horns feel the impression of age, and shrink like the rest of the body. No branch bears more than twenty or twenty-two antlers, even in its greatest state of perfection; and the number is subject to great variation. As soon as the stags have shed their horns, they separate from each other, and seek the plainer parts of the country, remote from every other animal, which they are then utterly unable to oppose. In this state of comparative imbecility they continue nearly three months before their heads have acquired their full growth and solidity. Sometime after they have completed their horns, they seek the female, to which they call with a loud tremulous note. At this time their neck is swoln; they appear bold and furious, and desperate battles uniformly ensue. When two stags contend for the female, they paw up the earth, menace each other with their horns, bellow with all their force, and striking in a desperate manner against each other, seem determined upon death or victory. This combat is continued till one of them is defeated or flies; and it often happens that the victor is obliged to fight several of these battles before he becomes undisputed master of the field.

The master stag continues to range from female to female for about three weeks; during which he appears scarcely to eat, sleep, or rest; but continues to pursue, to combat, and to enjoy. At the end of this period of madness, (for such in this animal it appears to be) the creature that was before so fat, sleek, and glossy, becomes lean, feeble, and timid.

As soon as the rutting season is over, the stags seek the company of each other and continue together in the greatest harmony (such at least is the case with those kept in parks); the males and females seek each other only in the rutting season; and scarcely at any other period are a stag and a hind seen together: the stags herd in a separate company, and the hinds do the same.

Some interesting observations on the present subject appeared in the *Annals of Sporting*, vol. vi. page 225. Speaking of Knowsley Park, the writer observes, "Some years ago, the deer in Knowsley Park did not breed well, owing to bad management, and the Earl of Derby was frequently under the necessity of purchasing stags for the purpose of hunting in Surrey; but since Mr. F. Shaw entered

the service of the noble Earl, and superintended these animals, they have been much more prolific, and the Surrey hunt is now amply supplied with stags from the park at Knowsley. In winter, especially in hard weather, deer require considerable attention, the fallow-deer in particular; and if they are not duly supplied with food, many of them will perish. From twenty to thirty stags per season are required for the hunting establishment at the Oaks, in Surrey.

“Among the stags I saw (continues the writer) were several which manifested a more than ordinary degree of familiarity with the keeper, and, upon remarking this circumstance to him, he observed, that this confidence or friendship would continue or increase until the period or season of killing the deer arrived, when these animals would shun him with the utmost possible attention. At this time, he said, the deer would not only run from his sight, but so exquisite was their sense of smell, that they would cautiously avoid his track: if they came upon it unconsciously, they would bound over it with a tremendous leap, and make off; or turn from it and fly away like lightning. Yet, if any other person had gone along, they would pass over the track without manifesting the least concern. *Apropos*, animals of the deer kind have a slit situated at the inner corner of each eye, of which, naturalists have formed an erroneous notion, and have consequently circulated incorrect accounts respecting this extraordinary provision of nature. When these animals drink (say they) ‘they plunge their noses, like some horses, very deep under water, and continue them in that situation for a considerable time; but, to obviate any inconvenience, they can open two vents, one at the inner corner of each eye, which have a communication with the nose. Here seems to be an extraordinary provision of nature, worthy of our attention; for it appears as if these creatures could not be suffocated, though both their mouths and nostrils were stopped. This curious formation of the head may be of service to beasts of chase, by affording them free respiration; and, no doubt, these additional nostrils are thrown open when they are hard run.’ To this account, which was addressed by the Rev. Mr. White, in a letter to Mr. Pennant, that gentleman thus replied:—‘I was much surprised to find in the antelope, something analogous to what you mention as so remarkable in deer. This animal has also a long slit beneath each eye, which can be opened and shut at pleasure. On holding an orange to one, the creature made the same use of those orifices as of his nostrils, applying them to the fruit, and seeming to smell it through them.’

“The information I obtained on this subject, from the intelligent keeper who accompanied me (Mr. F. Shaw) and who has had almost innumerable opportunities of observing the slits in question, during a period of fifty years, is in opposition to the doctrine just promulgated. These slits have no communication whatever with the nose, nor is it easy to ascertain for what purpose they are designed. When the animal is irritated, they are opened and distended to the utmost; they will also be found frequently to contain a mucous discharge, as if the fluxions from the eyes and head were thus carried off.

These creatures evince a most capricious disposition, and are equally remarkable for a very peculiar animal economy. A stag in Knowsley Park, a few years back, had its leg broken by accident, the lower part of which ultimately dropped off; yet the animal continued apparently in health, except that its horns presented a new appearance; they were by no means so large as usual, were almost destitute of antlers, and as much like the horns of a goat as those of a deer."

Of all the animals that are natives of this climate, there is none that has so beautiful an eye as the stag: it is sparkling, soft, and sensible. His senses of smelling and hearing are in no less perfection. When he is in the least alarmed, he lifts the head and erects the ears, standing for a few minutes as if in a listening posture. Whenever he ventures upon some unknown ground, or quits his native covering, he first stops at the skirt of the plain to examine all around; he next turns against the wind to examine by the smell, if there be any enemy approaching. If a person should happen to whistle or call out, at a distance, the stag is seen to stop short in his slow, measured pace, and gazes upon the stranger with a kind of awkward admiration: if the cunning animal perceives neither dogs nor fire arms preparing against him, he goes forward, quite unconcerned, and slowly proceeds, without offering to fly.

The stag eats slowly and is very delicate in the choice of his pasture. When he has eaten a sufficiency, he then retires to the covert of some thicket to chew the cud in security. His rumination, however, seems performed with much greater difficulty than with the cow or the sheep; as the grass is not returned from the first stomach without much straining and a kind of hiccup, which is easily perceived during the whole time it continues.

The animal's voice is much stronger, louder, and more tremulous, as he advances in age; and in the time of rut it is even terrible. The cry of the hind or female is not so loud as that of the male, and is never exerted but by apprehension for herself or her young. It need scarce be mentioned that she has no horns, or that she is more feeble and unfit for hunting than the male. The time of gestation continues between eight and nine months, and they seldom produce more than one at a time. Their usual season for bringing forth is about the month of May, or the beginning of June, during which they take care to hide their young in the most obscure thickets, from their numerous enemies, amongst the most formidable of which, may be included the stag himself.

In the present cultivated state of this country, the stag is little known in its natural wild state. The few that still remain wild are principally to be found in Devonshire and Cornwall. They are still met with in a state of unlimited freedom in some parts of Ireland, as well as in the Highlands of Scotland, for the most part in the neighbourhood of Blair Athol.

The stag, from the elegance of his form and the lightness of his motions, is, of all the deer kind, the most beautiful. His colour is generally a reddish brown, with some black about the face, and a list of the same down the hind part of the neck, and between the shoul-

ders; he grows to a large size; and one which was killed in the neighbourhood of Aberdeen, weighed three hundred and eighteen pounds, exclusive of the entrails, head, and skin; but those found in Bavaria, far exceed this bulk. Houdins, a German geographer, relates, that on the 22nd of August, 1560, a stag was hunted and taken, which weighed 625lbs. In 886, we are told, that Basilius was attacked by a vast stag; this enormous beast lifted the emperor from his horse, on one of his horns, by his belt, and bruised his inside so much as to occasion his death.

STAG HUNTING. By sportsmen, the stag is called, the first year, a *calf* or *hind-calf*; the second year, a *knobber*; the third, a *brock*; the fourth, a *stagg-nard*; the fifth, a *stag*; the sixth, a *hart*. The female is called a *hind*: the first year she is a *calf*; the second, a *hearse*; the third, a *hind*. This animal is said to *harbour* in the place where he resides. When he cries, he is said to *bell*; the print of the foot is called the *slot*; his tail is called the *single*; his excrements, the *fewmets*; his horns are called his *head*; when simple, the first year, they are called *broches*; the third year, *spears*; the fourth year, that part which bears the antlers, is called the *beam*; and the little impressions upon its surface, *glitters*; those which rise from the crust of the beam, are called *pearls*. The antlers, also, have distinct names: the first that branches off, is called the *antler*; the second, the *sur-antler*; all the rest which grow afterwards till you come to the top, are called *croches*. The impression of the place where the stag has lain, is called the *layer*, or *lair*. If it be in covert or a thicket, it is called his *harbour*. When a deer has passed into a thicket, leaving marks whereby his bulk may be guessed,

it is called an *entry*. When they cast their heads, they are said to *mew*. When they rub their heads against trees to bring off the peel of their horns, they are said to *frag*. When a stag, hard hunted, takes to swimming in the water, he is said to *take soil*; when he turns his head against the hounds, he is said to stand at *bay*; and when the hounds pursue upon the scent until they have unharboured the stag, they are said to *draw on the slot*.

The Highland chieftains used to hunt the stag with the utmost magnificence; they assembled some thousands of their clans, who surrounded a great tract of country, and drove the deer to the spot where the chieftains were situated, when a sort of indiscriminate slaughter commenced—not of all the deer; for, although several hundreds might be driven to a particular spot, yet, from the peculiar rush of the animals, on finding themselves in danger, a comparative few only were killed. The author of Waverley has noticed the mode of hunting deer in the Highlands of Scotland.

One of the best descriptions of the ancient manner of hart or stag hunting is the following:—

I am the hunt, which rathe and early rise,
(My bottell filde with wine in any wise)
Two draughts I drinke, to stay my steps withall,
For each foote one, because I would not fall.
Then take my hound, in liane me behind,
The stately hart in fryth or fell to find.
And whiles I seeke his slotte, where he has fedde,
The sweet byrdes sing to clear my drowsie head.
And when my hound doth straine upon good vent,
I must confesse, the same doth me content.
But when I have my coverts walkt about,
And harbred fast, the hart for coming out:
Then I returne, to make a grave report,
Whereas I find th' assembly doth resort.
And lowe I crouch, before the lordings all,
Out of my horne, the fewmets let I fall;
And other signs and tokens do I tell,
To make them hope the hart may like them well.

Then they command that I the wine should taste,
 So biddes mine art ; and so my throate I baste.
 The dinner done, I go straight wayes againe,
 Unto my markes, and shew my master plaine.
 Then put my hound upon the view to drawe.
 And rouze the hart out of his layre by lawe.
 O gamesters all, a little by your leave,
 Can you such joyes in trifling games conceive ?

This shews, in the first place, that the sportsmen were much addicted to their cups ; and that the huntsman, in this respect, copied his master ; it further shews that the latter rose at early morn to track the deer to his lair, and then, being sure of his game, returned to the sportsmen ; whom, it would appear, dined at about the same hour which it is now the custom to breakfast ; and it would further appear, that, after dinner, they prepared for the chase.

Respecting the chase of this animal, we find the following circumstance upon record. In early times, the family of the St. Clairs settled in Scotland. They were of Norman extraction, being descended from William de St. Clair, and Margaret, daughter of Richard, Duke of Normandy. One of them, for his fair deportment, was called the *seemly St. Clair*, and the family settling in Scotland during the reign of Malcom Ceanmore, obtained large grants of land in Mid Lothian. These domains were increased by the liberality of succeeding monarchs, to the descendants of the family, and comprehended the baronies of Ross-shire, Pentland, Cowsland, Cardaine, and several others. It is said a large addition was obtained from Robert Bruce, owing to the following circumstance :—The king, in following the chase upon the Pentland Hills, had often started a "*white faunch deer*," which had always escaped from his hounds ; and he asked the nobles, who were assembled around him, whether any of them had dogs which they thought might be more successful. No courtier would affirm that his hounds were fleetier than those of the king, until Sir William

St. Clair, of Rosline, unceremoniously said, he would wager his head that his two favourite dogs "*Help and Hold*," would kill the deer before she could cross the March-burn. The king instantly caught at his unwary offer, and betted the Forest of Pentland Moor against the life of Sir William St. Clair. All the dogs were tied up except a few slow hounds to rouse the deer ; while St. Clair, posting himself in the best situation for slipping his dogs, prayed devoutly to Christ, the Blessed Virgin, and St. Catherine. The deer was shortly after roused, and the hounds were slipped, St. Clair following on horseback to cheer his dogs. The hind, however, reached the middle of the brook, upon which St. Clair threw himself from his horse in despair. At this critical moment, Hold stopped her in the brook ; and Help coming up, turned her back, and killed her on St. Clair's side. The king descended from the hill, embraced Sir William St. Clair, and afterwards bestowed on him the lands of Kirkton, Loganhouse, Earncraig, &c. in free forestrie. St. Clair, in acknowledgement of St. Catherine's intercession, built the Chapel of St. Catherine in the Hopes, the chapel yard of which is still to be seen. The hill from which Robert Bruce beheld this extraordinary chase, is still called the King's Hill ; the place where St. Clair hunted, is called the Knight's Field ; and the tomb of Sir William St. Clair, is still to be seen, on which he appears sculptured in armour with a hound at his feet.

The following beautiful lines were written by Sir Walter Scott (and appear in the *Lady of the Lake*) :—The imprisoned huntsman :

My hawk is tired of perch and hood,
 My idle greyhound loathes his food,
 My horse is weary in his stall,
 And I am sick of captive thrall.
 I wish I were as I have been,
 Hunting the hart in forests green,
 With bended bow and blood hound free,
 For that's the life is meet for me.

I hate to learn the ebb of time
 From yon dull steeple's drowsy chime,





Or mark it, as the sun beams crawl,
 Inch after inch, along the wall;
 The lark was wont my matins ring,
 The sable rook my vespers sing;
 These towers, although a king's they be,
 Have not a hall of joy for me.

No more at dawning morn I rise,
 And sun myself in Ellen's eyes,
 Drive the fleet deer the forest through,
 And homeward wend with evening dew;
 A blithesome welcome, blithely meet,
 And lay my trophies at her feet,
 While fled the eve on wings of glee,
 That life is lost to love and me.

The subject of stag hunting induces us to relate an anecdote, or rather one of the most extraordinary plans that was ever practised against the life of a human being. King William III. was passionately fond of hunting, and made it a point of honour never to be outdone in any leap, however dangerous. A gentleman of the name of Cherry, who was devoted to the exiled family, regularly joined the royal hounds, put himself foremost, and took the most desperate leaps, in the hope that the king might break his neck in following him. One day, however, he accomplished one so imminently dangerous, that the king when he came to the spot shook his head and drew back.

Queen Elizabeth was much attached to stag hunting; and it is said that Queen Anne, as she was journeying to Portsmouth, came out of the great road at Lippock, and reposing herself on a bank smoothed for that purpose (which still retains the name of Queen's Bank, and is about half a mile from Wolmer Pond) there saw, with great complacency and satisfaction, the whole herd of red deer brought by the keepers along the vale before her, consisting of about five hundred head. These deer belonged to Wolmer Forest, which, by the deer stealers, were, in the course of some years after, reduced to fifty; they continued decreasing, in fact, until the time of the old Duke of Cumberland, who sent down the stag hounds and their attendants, who took, in one summer, every stag, and conveyed them in carts to Windsor. In the winter following, the hinds were also caught and conveyed away in the same manner.

As there are scarcely any wild deer to be met with in this country, there are but few establishments of stag hounds. Those belonging to the king are entitled to notice: The kennel in which the royal

hounds are kept is situate upon Ascot Heath, near the race course, about six miles from Windsor castle. At about a mile distant from the kennel is Swinley Lodge, the official residence of the master of the stag hounds. But the presence of the master of the hounds at all times in the field is not a matter of necessity, unless when his majesty hunts, and then his personal attendance is indispensable, appearing invariably with his badge of office, a pair of gold couples, which hang suspended from a hunting belt on the left side.

His late Majesty Geo. III. was frequently out with the stag hounds, and he seemed very much to enjoy the diversion. He rode tolerably well; but of course never attempted to take any extraordinary or *rasping* leaps: he was, however, a pleasant, good tempered sportsman; and his condescending affability endeared him to all those who were in the habit of attending the hounds. On the day appointed for hunting, the deer was conveyed in a cart from the paddocks of his majesty at Swinley Lodge, to the appointed spot. Ten o'clock was generally the hour of meeting; and at the distance of one third of a mile from the cart containing the deer, the hounds, attended by the huntsman and his assistants, waited the arrival of his majesty. The huntsman and his assistants (called yeomen prick-ers) were richly apparelled in short hunting jackets of scarlet and gold; part of them having French horns appropriate to the chase.

George III. was generally very punctual. In a short time after the arrival of the hounds, he was seen approaching, attended by the master of the horse and the two equerries in waiting. On these occasions, of course, the master of the hounds was in attendance ready to receive his

majesty. As soon as his majesty had exchanged his hackney for his hunter, a signal was given for the liberation of the deer, and five or ten minutes were allowed for his going away. During this interval, the strains of the horns and the music of the pack, formed a chorus by no means unpleasing to a sportsman. The anxious moment at length arrived, and the hounds were laid on the scent.

When the deer first goes off, two of the yeomen prickers accompany him in two parallel lines, right and left, so as not to lose sight of the direction he takes so long as they can keep him in view; by which means they were generally forward to assist in stopping the hounds at any point required, more particularly if they happened to get too much a-head of the horsemen; and thus afford his majesty and others an opportunity of coming up.

When his majesty (and most likely the great body of the company) was left at a considerable distance behind, the hounds were headed and stopped, to enable the slow riders to come up, and also to allow the deer time to get second wind; as there are few of these animals, bred in parks, which would stand up long before hounds without such indulgence. Thus the pursuit is continued till the deer is taken or killed; the latter, however, seldom occurs, as every effort is made to secure him for future diversion. Although chases like these form only secondary sort of sport, and are poor indeed in the estimation of a fox hunter, yet sometimes long runs occur.

In the Easter week of 1796, the sport of the three days was excellent.—The concourse of people present on the Monday on turning out the deer on Ascot Heath, was great almost beyond comparison, and the run proved destructive to several of the horses (most likely from injudicious riding). Almost as soon as the deer had been liberated, the hounds suddenly broke away, and continued the chase in such unusual style, that in the first burst of ten miles the slow going gentry formed a tail line of full four miles; upon reaching London Blackwater, in the great Western Road, the deer turned to the right, through Sandhurst and Finchampstead, till nearly reaching Wokingham town end, and suddenly turning to the left, he continued his course in a most gallant manner through the parishes of Barkham, Arbonfield, over Farley Hill, Swallowfield, Mortimer, through the river Kennet, and to Aldermaston, near New-

bury; where he was taken after a run, *it was supposed*, of nearly fifty miles.

On the following Thursday, a deer called Sir Henry Gotte was turned out (having been presented to his majesty by a Buckinghamshire knight of that name) and went off in the most gallant style imaginable. Ten minutes' law were allowed him; and as the scent was uncommonly good, the hounds ran breast high, and could only be stopped once during the first hour and a half. The deer ran over nearly the same ground as the stag which had been turned out on Monday, till he reached Wokingham, the gardens of which town he passed through, and made away over Froghall Green, through the parishes of Binfield, Warfield, the Hazes, and Shotsbrook-coverts, Braywick, and was taken at Holyport, after a chase of four hours as fine running as possible.

On Saturday in the same week, a stag, the brother to Sir Henry Gotte, was turned out near the race course, at eleven o'clock; and facing the open country, went away in a style that seemed to bid defiance to his pursuers. After a circle of some few miles upon the heath and by Sunning Hill Park, he passed Sunning Hill Wells, Brummel Hut, and through Patnell's Warren, where he turned to the left, and reached the bridge at Virginia Water; here he waited till the hounds came nearly up to him, when surveying the approach of the field for a few seconds, he broke away and took the whole of the swampy country, and over the large fences to Thorpe Green; leaving Chertsey to the right, he passed through the meadows and crossed the Thames, continuing his course over the fields to Staines. Here he amused the inhabitants in their gardens and orchards, where he and the hounds were repeatedly together and his escape from destruction appeared almost impossible; but by clearing some most surprising leaps, he once more broke away, crossed the western turnpike road, and again led the chase in a very gallant style. Crossing the intervening inclosures to Wyradsbury, and nearly reaching Colnbrook, he made away to the right, and was taken near the seat of Sir W. Gibbons, at Stanwell, after a fine run of two hours and a half.

The royal stag hounds are still kept up in the same style of splendour and magnificence (and indeed a pack of harriers has been added to the hunting establishment), though his late majesty, Geo. IV.

seldom, we believe, if ever, attended the meetings; nor indeed does any part of the royal family appear to have imbibed the passion for hunting, which distinguished George III.

The Earl of Derby supported an extensive stag hunting establishment, which, during the hunting season, continued at the Oaks in Surrey; the rest of the year, the horses, hounds, &c. were at Knowsley, near Liverpool. The writer saw the stag hounds belonging to this nobleman, in the year 1824. These hounds did not appear so large as the royal hounds; they were, in fact, fox hounds in appearance, narrow nosed fleet animals, evidently possessing more than ordinary speed. There was one bitch in particular to which the huntsman drew our attention, and exultingly remarked that she would run four miles in less time than a greyhound! as, however, no trial had taken place, to demonstrate the truth of this position, we are free to confess that the huntsman's assertions did not exactly convince us. There were about thirty beautiful hunters in the stables; and the establishment altogether was on a scale of princely splendour.

There are, we believe, several other stag hunting establishments; but of minor consideration. In Devonshire, up to the year 1824, stag hounds, latterly under the direction of Mr. Lucas, were kept for the purpose of hunting the wild deer which still continued to exist in a state of unlimited freedom in that country; the establishment was, however, broken up in 1824; the wild deer have most likely disappeared ere this; and consequently no similar establishment is likely again to exist in this country.

It is upon the continent we are to look for stag hunting; but the system of the chase is different, and not exactly in unison with the feelings of an Englishman on the subject.

In September, 1686, (during the rutting season) as Frederick William, Elector of Brandenburg, and his Electress Dorothea, were hunting after dinner, in an open chair, at Gotze, about half a mile from Custrim, on the Oder, they saw, about one hundred paces off, a very stately stag, standing with his head pointing towards the left side of the chair. Her most serene Highness taking aim, shot him with a leaden bullet, whereupon he moved off slowly to the distance of three or four hundred paces, losing a great quantity of

blood in his way, and tottering from weakness: he took refuge in a ditch, where M. Consart, by the help of his spaniel, found him in a standing position; and, at thirty paces distant, by the Elector's order, lodged another ball in the back part of his head; and, finding him still to keep his legs, advanced six paces nearer, and lodged a third under his left ear, when the deer instantly dropped, and lay without motion. In this condition, Conrad, a forester, and Frobenius, the Elector's master of the horse, drew him out of the ditch, and brought him near the chair, which was now come up. The Elector commanded Frobenius and Conrad to look for the wound the Electress had first given him, and they found the ball had entered close by the upper end of the bone of the left fore leg, just under the shoulder blade; they traced it with their fingers into the cavity of the breast, on towards the right side.

The forester, at this time, was sent to obtain a cart from some rustics in the neighbourhood, but it did not arrive in less than three quarters of an hour, during which time, the stag continued lying on the ground, to all appearance, lifeless. The countrymen, who came with the cart, turned him from one side upon his belly, and, laying hold of his horns, lifted his head into the cart, when, just as they were upon the point of raising the body, the stag jumped upon his feet, sprang away from them, and to the amazement and consternation of every one present, traversed the country with incredible swiftness. They then pursued him near two miles towards the Oder with hounds, which, coming up with him, stopped his progress; the forester coming up, shot him in the hinder part of the back; notwithstanding which, he made an effort towards a further escape, but was at last pulled down and killed by the dogs: he was brought to the Elector's lodge at Gotze, where the hunters opened the carcass, and, to their great astonishment, found the heart entirely perforated (the ball having passed quite through), which, as a most surprising circumstance, they represented to their most serene highnesses, who gave directions that it should be carefully examined by their physicians, Doctors Willich and March. These gentlemen reported that the ball had penetrated the posterior part of the heart, and passed through the middle of the right, a portion of the left ventricle, and made its exit through the anterior part of the heart,

under the right auricle ; the wound being large enough to admit a finger, and that the fleshy fibres of the surrounding parts were considerably lacerated and contused.

Some years ago, a stag was turned out of Whinfield Park, and hunted by the hounds of the Earl of Thanet, till, by fatigue, the whole pack were thrown out, except two staunch hounds, which continued the pursuit through the greater part of the day. The stag returned to the park, whence he had started, and, as his last effort, leaped the wall, and expired immediately. One of the hounds brought the scent up to the wall, but was so exhausted that he died on the spot; and the other hound was found dead at a short distance behind him. The length of the chase could not be exactly ascertained; but, as they were seen at Red Kirks, near Annan, in Scotland, distant by the post road about forty-six miles, it was supposed that the run could not have been less than seventy or eighty miles. In commemoration of this fact, the horns of the stag, which were the largest of any seen in that part of the country, were placed on a tree of a most enormous size in the park, and afterwards called the *hart-horn tree*. The horns have since been removed, and are now at Julian's Bower, in the same county.

In early times, when the king lost a stag, open proclamation was made in all towns and villages, near where the deer was supposed to remain, that no person should kill, hunt, or chase him, that he might safely return to the forest again, and the foresters were ordered to harbour the said hart, and by degrees bring him back to the forest; and that deer was ever after called a *hart royal proclaimed*. Some years since, an old record remained in Nottingham Castle, stating, that in 1194, Richard I. chased a stag from Sherwood Forest to Barnsdale, in Yorkshire, and there lost him. He made proclamation at Tun Hill, in Yorkshire, and divers other places in the neighbourhood of Barnsdale, that no person should chase, kill, or hunt, the said deer, that he might return to his lair in the forest of Sherwood.

The stag is an animal of great courage, as was proved by the attempt made at the instance of the late Duke of Cumberland, where a stag was inclosed in an area with a hunting tiger. It occur-

red in Ascot Race week, and this novelty attracted an additional concourse of people. On a lawn by the road side, a space was fenced in with very strong toiling fifteen feet high, into which an old stag was turned, and shortly after a hunting tiger was led in hood-winked, by two blacks that had the care of him, and his eyes and himself at once set at liberty. The instant he saw the stag, he crouched on his belly after the manner of a cat, watching an opportunity to seize his antagonist. The stag presented his brow antlers, and warily turned as he perceived the tiger creeping to get into his rear. Thus the two animals continued, the tiger endeavouring to turn the enemy's flank, and the stag equally cautious to face him; till the Duke becoming impatient, asked if by irritating the tiger, the combat could not be produced. He was told the attempt would be dangerous; but he ordered it, nevertheless, to be made: the keepers approached the tiger and did as they were ordered; when the enraged animal, instead of attacking the deer, made a furious spring and cleared the toiling that inclosed him. Great indeed was the confusion amongst the multitude, but the tiger, without molesting any one, crossed the road, and, rushing into the opposite wood, seized on a fallow deer, a herd of which happened to be near the scene of action. His keepers, after some hesitation, ventured to approach the tiger; and after cutting the deer's throat, separated the haunch, on which the animal had seized, and which he continued to hold, hood-winked him, and led him away with the venison in his mouth.

The stag was formerly used on the the continent as an instrument for punishing offenders. In the sixteenth century, a man was seen to pass through the neighbourhood of Friedberg fastened to the back of a stag: he was distinctly heard to cry for assistance, saying he had been three days in that horrid situation, the stag having brought him all the way from Saxony. Some time after, the man and the stag were both found, almost torn to pieces, near the city of Solms.

We shall close the present subject with an animated poetical description of the chase of the stag, applicable to the period when stags were found in a state of nature:—

The stag, too, singled from the herd, where long
He rang'd the branching monarch of the shades,

Before the tempest drives. At first in speed
 He, sprightly, puts his faith ; and, rous'd by fear,
 Gives all his swift aerial soul to flight.
 Against the breeze he darts, that way the more
 To leave the lessening murderous cry behind.
 Deception short ! though fleetier than the winds
 Blown o'er the keen-air'd mountains by the north,
 He bursts the thickets, glances through the glades,
 And plunges deep into the wildest wood.
 If slow, yet sure, adhesive to the track,
 Hot streaming, up behind him come again
 Th' exulting pack, and from the shady depth
 Expel him, circling through his every shift.
 He sweeps the forest oft, and, sobbing, sees
 The glades mild opening to the golden day ;
 Where, in fierce contest, with his butting friends
 He wont to struggle, or his loves enjoy.
 Oft in the full descending flood he tries
 To lose the scent, and lave his burning sides ;
 Oft seeks the herd : the watchful herd, alarm'd,
 With selfish care, avoid a brother's woe.
 What shall he do ? His once so vivid nerves,
 So full of buoyant spirit, now no more
 Inspire the course ; but fainting breathless toil,
 Sick, seizes on his heart ; he stands at bay ;
 And puts his last weak refuge in despair.
 The big round tears run down his dappled face ;
 He groans in anguish, while the growling pack,
 Blood happy, hang at his fair jutting chest
 And mark his beauteous chequer'd sides with gore.

STAG.—Term for a young game cock during his second year. For the whole of the first year, he is called a chicken ; from which time to the completion of the second, he is a stag ; and from thence forward, a cock. In regular matches and mains for considerable sums of money, very few are brought to pit before they are of that age ; unless it is made, and so agreed on both sides, in which case it is called a stag main, or main of stags.

STAGGERS.—For example, the mad-staggers (says Osmer) has been treated by all the old writers as an apoplectic or nervous disorder ; which alleged nervous disorder is a something they know not what ; but is clearly a kind of subterfuge for what they do not know. But the mad-staggers is in reality a fever, of which I have cured many horses by the same means as those directed for the fever, called distemper. In like manner, all the different diseases called by the names of convulsions, epilepsy, vertigo, and apoplexy, are, nineteen times in twenty, no other than secondary effects, or symptoms of fever. Just so it is amongst men, some of whom have with a fever the concomitant symptoms of coma, or sleepiness, delirium, or madness, spasms, convulsions,

&c. yet these affections in the horse are always treated as original diseases by our farriers ; who, to give the strongest proofs they can, of their ignorance in these matters, have lately found out a new way, by which they expect to cure these disorders, that is, by giving the horse a drench through the nose instead of the mouth !—if horses were to doctor men, could they act with less rationality ?

But, so far from depending on the nervous system, some of those symptoms that acquire the names of vertigo, apoplexy, and epilepsy, may happen to the horse simply from repletion, when there is no apparent fever, and from various other causes ; for instance, the worms in horses, as well as in men, will occasionally produce the appearance of all other diseases. Now those concomitant symptoms of delirium, coma, convulsions, &c. do not require our particular attention in horses as in men ; but when the fever is attended with any of those symptoms, large and repeated bleeding is our chief dependance, more especially if the jaws are shut so fast as to render it impossible to give the horse any internal medicine. Here again, incisions of the skin, before recommended, (No. 1 or 2,) as drains, and clysters should

be used, and nitre given internally, as soon as the horse's closed mouth relaxes, taking care to join some laxative salts with it, to keep the patient's body open, or rather loose.

Fever Powder, No. 1.

Nitre, powdered, one ounce ;

Camphor, two drachms ;

mix, and give in mucilage of gum arabic ; or the whole in oatmeal gruel, twice a day, and give until the water produced is abundant.

Fever Ball, No. 2.

Nitre, powdered, six drachms ;

Camphor, one drachm ;

Tartrate of antimony, one drachm ;

Liquorice powder, two drachms ;

mix, for one dose, with mucilage of gum arabic and meal, enough to form the ball ; give a horn of gruel upon the ball.

Nitre should always be accompanied by the gum, lest it occasions pain in the horse's stomach. When much water is passed, cease the nitre altogether.

A case of staggers occurred in my practice which convinced me, more than ever, of the value of salts in the cure of horses' diseases, and this particular ailment eminently so. It so happened, that a horse, mad with the staggers, (caused by walking round and round, generally) broke out of a stable belonging to a gunpowder-mill, and got to a large cistern of water, in which so much saltpetre was dissolved, that it was barely in a state of fluidity. Hereof he drank, or rather swallowed, several gallons ; this soon promoted a very copious secretion by the urinary passages, after which, he became immediately well, without any other assistance. This case is mentioned here to shew the good effects of nitre in fevers, and that some horses are able to take any quantity of this salt ; and yet others, from a difference of constitution, more particularly when they eat grass, shall not be able to take the smallest quantity, without being affected with gripes or cholic ; therefore, it is always best to begin with a small quantity, not less than an ounce, which should be mixed, and made into a ball, with some mucilage of gum arabic and meal ; and if the horse be not affected with cholicky pains, the dose may, by degrees, be increased to a greater quantity, according to the different age and symptoms. But when gripes ensue from the use of this salt given in small quantities, you will find that tartar soluble, sal regeneratum, or any such kind of neutral salt, will answer your purpose, given twice or thrice

a day in such quantities as you would use nitre.

STALING.—A term used to signify, in a horse or mare, the act of evacuating the urinary bladder. It is a humane and necessary practice to suffer horses to void their urine at full leisure ; and to encourage them to it by whistling, or any other of the soothing methods which they may understand.

Horses are seldom subject to stale blood, unless when they have received some strain in the kidneys, or when some blood-vessel has been ruptured about the neck of the bladder, or from some erosion either there or in the urethra, by which some of the small blood-vessels may have been laid open and send forth a bloody discharge ; but when this happens, it is generally very small in quantity, and often goes off without the help of medicine. These effects may also proceed from sharp rugged stones in the kidneys, ureters, or about the neck of the bladder ; though, from what authors have hitherto observed on the subject, horses are not very frequently so affected from this cause, but, for the most part, in consequence of very hard labour, or some other ill usage.

In this case the urine becomes bloody, and sometimes even clear blood will pass off just after staling. In order to effect a cure, if the horse be fat and lusty, it will be proper to bleed plentifully, but if he be low in flesh, more sparingly, or not at all. It has been the practice to follow this by the internal use of mild astringents, such as the following, from Gibson :

Take Conserve of red roses,

Locatelli's balsam, of each six drs ;

Spermaceiti, half an ounce ;

Nitre in powder,

Irish slate, of each two drachms ;

Syrup of poppies, sufficient to make it into a ball.

This, he says, generally cures any horse that stales blood, while the disorder is recent, and when the blood does not proceed from some inward ulceration. It may be repeated until the symptoms go off and the horse stales freely. If the bloodiness of the urine proceed from an affection of the kidneys, neck of the bladder, or urethra, which may be known by pain and interruption in staling, and by a purulent sediment in the urine, it must be treated as under those heads, and, if obstinate, with mercurials and such other medicines as may be required.

The most remarkable case I ever met with of this kind, says Gibson, was that of

a troop horse, that happened to be overstrained in riding, perhaps at a time when his bladder was full and wanting to stale. When he came home, I found him much out of order, drooping, hanging his head, and off his stomach, and after staling, voiding sometimes about a gill, sometimes about half a pint or more, of fresh blood, which I saw several times lie clotted on the pavement or among his litter. This horse was treated with rowelling, bleeding, and the use of the last-mentioned prescription, which soon relieved him, and was repeated till all the symptoms were removed. After which, some mild purges were exhibited, whereby he was enabled to do his work as usual. Yet after two years, upon some other occasion, the same symptoms returned, but not so violent, and were soon cured with the use of the same remedies.

Modern veterinarians will not be inclined to attribute much of the credit of the cure, in the cases here cited, to the balls prescribed by Gibson. Bleeding, rest, and the use of diluents, were probably the actual causes of restoration. If any thing would have contributed to the further success of this plan, it is, perhaps, the free use of mucilaginous solutions, as those of gum arabic, &c. as in the strangury. See STRANGURY.

STALKING HORSE.—A device formerly made use of for the purpose of approaching wild fowl. Sometimes a real horse was used, sometimes the skin of one stuffed. This device has, however, been laid aside. The mode of operation was for the fowler to approach his object so as not to be seen, as birds are not alarmed at the sight of a horse. The horse formerly used for driving partridges into the tunnel net has also given way to more expeditious methods.

STALL. The partitions into which a stable is divided are denominated stalls; and the space allotted to each horse is called a stall. These, in stables constructed with judgment, and erected with a necessary respect to health and convenience, should never be less than nine or ten feet high, and six feet wide; the height will contribute much to the equal temperature of the air; and the width will contribute to the comfort of the horse in an occasional extension of his extremities, as well as prevent many of those injuries sustained in too suddenly turning in narrow and confined stalls, particularly in the common livery stables of the metropolis. In large establishments there are single stalls (called loose boxes)

of such dimensions as are adapted to the accommodation of horses either sick or lame, where they are then at liberty to expand at full length, and enabled to roll at their ease; these are of great utility, and few sportsmen continue long without them.

STALLION is the appellation given to a perfect horse, not mutilated by the operation of castration, but preserved in a state of nature, for the purpose of propagation. Stallions should be of great strength, according to the distinct breed they are intended to promote; of correct shape, uniform make, and corresponding symmetry; free from every kind of hereditary taint; good eyes, long forehead, short back, round barrel, wide chest, straight legs, free from splents before, and spavins behind. Although it is a difficult task to obtain perfection, some little circumspection may be necessary, in coming as near to it as circumstances and situation will permit. Experimental observation has produced demonstration, that stallions really blind, or with eyes defective, have produced colts of a similar description; such defects not appearing in their first two or three years, nor, indeed, till they have been worked, and the powers brought into action. Instances are never wanting of the great number annually disposed to breed, who as annually repent for want of these prudent precautions. Not only the above points, but the temper and disposition of a stallion should be also attended to: vicious and restive horses should be equally avoided; those imperfections are very frequently transmitted from sire to son, and continued to posterity.

STARS are distinguishing marks in the foreheads of horses. They are usually white. Solleysel says, the method of making a star is as follows: "if you would have a white one in his forehead, or indeed in any other part of his body, first, with a razor, shave away the hair, of the width or bigness that you would have the star to be; then take a little oil of vitriol in an oyster shell, and dip a feather or piece of stick into it, for it will eat both linen and woollen, and just wet it all over the place that you have shaved, and it will eat away the roots of the hairs, and the next that come will be white. It need not be done above once, and may be healed up with green ointment."

STARTING. In horses, is an imperfection, if it becomes habitual, that is of the most dangerous description. It is

exceedingly different from a horse skittish, wanton, and playful only, for which the rider is always prepared; and if a good horseman, it is generally as pleasing to one as to the other. But when a horse is continually in fear, and alarmed at every object unlike himself, he not only sometimes snorts and stops suddenly in the midst of a rapid career of either trot or gallop, but, by an instantaneous spring of five or six feet, brings the rider over his head, or dismounts him on one side or the other. It is not at all matter of surprise, that most of the young horses brought from the country, should at first be alarmed at the infinite variety and velocity of carriages, as well as with other strange and unaccountable objects, to which they must have been entirely unaccustomed before they reached the environs of the metropolis. Horses of this

description, (good tempered, and not viciously inclined,) are never known to be long so disposed, provided they are treated tenderly, and encouraged mildly to pass the object by which they have been so suddenly, accidentally, and perhaps unnecessarily, alarmed: but when the persons who ride them, permit passion and inhumanity to predominate over reason, obstinacy on one side often begets opposition on the other, and accident or death frequently ensues.

STERN. The tail of a hound, greyhound, or pointer, is sportingly so called.

STEW is a small reservoir of water, to which fish are brought from larger receptacles where they are bred or caught, and there deposited for the daily use of the family, the supply being constantly kept up in proportion to the domestic consumption.

STOAT. The stoat or ermine differs from the weasel in size, but not in disposition: it is usually nine inches long; the weasel is not much above six. The tail of the stoat is always tipped with black, and is longer in proportion to its body than that of the weasel. The edges of the ears and the ends of the toes in this animal, are of a yellowish white; and although it is of the same colour with the weasel, being of a lightish brown, and although this animal, as well as the weasel, in the most northern parts of Europe, changes its colour in winter, and becomes white, yet even the weasel may be easily distinguished from the stoat, by the tip of the tail, which, in the latter is always black.

The stoat is sometimes found white during the winter season in Great Britain, and is then generally called the *white weasel*. Its fur, however, having neither the whiteness, the closeness, or the thickness of those which come from Siberia, is with us, of little value.

In Norway, the stoat, or ermine, lives among the rocks, catches mice like a cat; is particularly fond of eggs, and when the sea is calm, it will swim over to the islands which lie near the coast of Norway, where there are vast quantities of sea fowl, in order to plunder the nests. Pontoppiddan remarks, that "this animal, although small, kills those of a much larger size, as the rein-deer and bear. He jumps into one of their ears when they are asleep, and adheres so fast by his teeth, that the creatures cannot disengage him. He likewise surprises eagles and heathcocks, by fixing on them, and never quitting them, even when they mount in the air, until the loss of blood makes them fall down."

The Norwegian bishop, we are aware, dealt occasionally in the marvellous; but whatever credit may be given to what we have just quoted from him, it is well known that, in this country, nothing is more destructive to game than the stoat. It is uncommonly destruc-

tive in a rabbit warren ; it will seize hares, and unerringly destroy them :—it seems never satiated with blood :—it is in vain that the hare attempts to escape by flight, her deadly enemy adheres with all the tenacity of a leech, and, where it can obtain a sufficient supply, the stoat will merely suck the blood and leave the carcase untouched. It will also seize partridges and pheasants on the nest, will destroy their eggs ; and, in fact, on the score of depredation amongst them (as we have already observed) it has scarcely an equal.

When a domestic hen happens to deposit her eggs at a distance from the house, it sometimes happens that a stoat and a crow contend for the prize. From having been in the habit of committing depredations of this kind, they are perfectly aware of the signal (the cackling of the hen) : therefore, while the hen is sitting on the nest, a crow may sometimes be seen on a neighbouring tree, and a stoat at the mouth of his hole waiting the important moment with anxious expectation. The moment the hen cackles, a race commences between the winged competitor and the little quadruped just mentioned, and whichever reaches the spot first, bears off the prize in triumph.

As the stoat is so destructive to game, all keepers should make it a primary consideration to rid their manors of a creature so mischievous. Stoats are easily caught in traps, particularly, it is said, if the bait be rubbed with musk. But even the stoat, destructive as it is to the hopes of the sportsman, is not without its redeeming qualities :—it will pursue the rat as eagerly and as fiercely as the ferret ; and on this account it is sometimes a favourite with the farmer. It kills mice also, and all the smaller kinds of birds which it is able to surprise.

There are some dogs, that, though they will worry rats, will not touch the stoat ; and whenever these creatures are killed, like most others of the weasel kind, they emit a very offensive fetid effluvium.

STONE. A term upon the turf, and used in matches, plates, and sweepstakes, to denote or imply what weight each horse is to carry ; that is, so many stone, so many pounds. Every stone is fourteen pounds, and this is called horseman's weight.

STOP. In the manege, a pause, or discontinuation of going. In order to stop a horse, the rider should, in the first place, bring-to the calves of his legs ; and bending his body backwards, raise the bridle hand, without moving the elbow ; then vigorously extend the hams, and rest upon the stirrups, to make him form the times or motions of his stop, in fal-cading, with his haunches, three or four times. The opposite term to stop is parting. Formerly, the stop of a horse was called parade.

STOPPING. The filling the hollow of a horse's foot with poultice, cow-dung, or any other moist application. It has

the effect of softening the sole, and, on some occasions, may be advantageous, though it is frequently misapplied.

STRAIN. See **SPRAIN**.

STRANGLES. The French and other foreign writers have compared the strangles in horses to the small-pox in men ; and as the small-pox is more incident to children than to grown persons, so it has been observed by these writers, that the strangles chiefly affects colts and young horses, when they catch inveterate colds ; which is very true, for horses are seldom subject to strangles after six years old, though Gibson speaks of some horses that he knew to have had this distemper at seven and eight, and sometimes at nine or ten, though these instances, he says, are not very common. The strangles is also said to resemble the small-pox in this, that it never seizes horses oftener than once ; whereas many other distempers, proceeding from common causes

and accidents, will return as often as there are the proper causes to produce them. But however that be, it is probable that the strangles is a critical swelling, which, when it suppurates and breaks, discharges somewhat obnoxious to the constitutions of young horses, as they are usually rendered more healthful than they were before.

The strangles begins with a swelling between the jaw-bones, sometimes pretty low among the muscles of the tongue, attended with great heat, pain, and inflammation, sometimes to such a degree, that a horse is scarcely able to swallow till the tumour suppurates.

Many colts have the strangles at grass, and the tumour comes to maturity and breaks, yielding a very plentiful discharge, without any other help than what nature affords; though in some cases there is very great malignity, with a purulent running at the nose, which is often dangerous. Those colts, however, that escape the strangles at grass, are liable, for the most part, to be seized when they are first taken up and put to business; and we often observe the change of diet, an alteration in the air, &c. bring on the strangles. Other causes may be, their catching cold, shedding their teeth, or whatever may induce pain, or bring on irritation at any critical time upon the throat and jaws.

When the strangles are coming upon a horse, he feels unusually hot, and sometimes very feverish, with a painful cough; some go quite off their stomachs, others are only dainty, or eat and drink with pain in chewing and swallowing. When the swelling begins on the inside of the jaw-bone, it is much longer in coming to maturity than when it begins more towards the middle. When the skin is tight and much stretched over the swelling, and that feels unusually dry, and hot, the swelling will in that case be large before it breaks, and yield a plentiful discharge. When the swelling of the strangles rises between the jaw-bones, under the middle of the tongue, it is always the most favourable; but if it rises upwards among the glands, and is divided into several little tumours, it is not so kindly, but is apt to break in several places and at different times before it sinks, which renders the case more tedious and troublesome.

When the strangles begin directly in the upper part of the throat, towards the head of the wind-pipe and gullet, it hinders a horse sometimes from swallowing

for several days, until the tumour grows full and large on the outside. This degree of the strangles is not altogether without danger of a suffocation. The pressure made upon the head of the wind-pipe makes the horse's eye look fixed, as if he was convulsed, with his nose turned outwards, and his nostrils open for want of breath; which symptom continues till the tumour, growing ripe, breaks and runs off. But the worst and most dangerous kind of strangles is, when at the same time that a horse is swelled under the jaws, he runs also at the nose, which Gibson attributes either to some constitutional malignity, or to bad management; and this is what some call the false or bastard strangles.

This disease seldom proves dangerous, unless the efforts of nature are interrupted. Doing much in this case, says Gibson, is worse than doing too little, for the strangles seldom needs any other help than to assist suppuration, by keeping the swelling always moist with camphorated hog's lard.

Some use poultices to the strangles; but besides the trouble of applying them, and renewing them often, they frequently prove hurtful, by being composed of materials that are too stimulating, as turpentine, &c. Besides, if the poultices are not kept close, they are apt to chill the part, and to repel, rather than promote, a discharge of the humours, and this often leaves a dry and obstinate cough, or endangers the horse's eyes. Another error in the cure of the strangles, is opening the tumour before it comes to maturity, which defeats the purpose of nature, for there are found, in that case, callous swellings under the throat, with a gleeing ulcer, sometimes followed by a plentiful running at the nose, which, without very great care, will end in the glanders. Of this, Gibson speaks of having seen several instances. Therefore, if the strangles proves kindly, and without uncommon symptoms, he insists, there is no need of any other application, besides keeping the part continually moist with some lenient ointment, till the tumour breaks and discharges itself, which, for the most part, happens in about five or six days. Some farriers are apt to open the tumours, or widen the orifice with tents; but this is altogether unnecessary, and often injurious, for nature does the business here effectually, unless the formation of matter has been hindered by some improper application.

If the strangles begin with great pain

and inflammation, as sometimes happens; if the horse's eyes are fixed, and he looks convulsed; his neck much swoln, and his jaws stiff, with his nose turned outwards; it is then necessary to take away a sufficient quantity of blood, to foment and apply a bran poultice to the part, covering it with a thin woollen cloth; and this should be persevered in till it comes to maturity and breaks. Sometimes the inflammation is so great as to destroy the skin that incloses the matter, by which means it falls off in pieces, like an eschar made by a caustic, and exposes the interstices of the muscles, and contiguous glands. But here also nature will effect a cure, without any other help, besides what has been already recommended; for the cavity is soon filled by a new growth of flesh, and covered with skin and hair, as perfect as at first. Sometimes the strangles break inwardly, and the matter is discharged chiefly by the mouth; and when it is so, the horse's mouth may be washed once or twice a-day, with equal parts of brandy and vinegar, with a spoonful of honey to each pint. This, with warm soft diet, will perfect the cure without any other help, and the swelling on the outside will soon wear off.

In some cases, where there is little swelling and inflammation, the horse will eat and drink without pain; and though there be a collection of matter, yet when it is small, it sometimes continues long without breaking. When matter is formed in this way, and may be felt by gentle pressure with the finger, Mr. Denny advises us to open the tumour with a lancet in the most depending part, as this prevents any ulceration of the skin. If the tumour has been very large, he advises that a seton should be introduced, to support the discharge till the cavity be filled up, after which it is to be withdrawn.

If the animal does not recover his strength (says the same writer) but becomes weaker, with the continuance of a fetid discharge from the nose, accompanied with a cough and difficult respiration, the following mixture should be given every four hours, until an alteration takes place:

Take of Peruvian bark, in powder, half an ounce;
Liquorice root, sliced,
Aniseeds,
Coriander seeds, bruised, of each one ounce;
Water, two quarts.

Boil them for ten minutes; then strain, and add, of

Tincture of opium, two drs.;

Honey, two ounces. Mix.

When the danger is removed, discontinue the mixture, and give the following ball every morning and night, with mashes of malt or oatmeal, and bran, to recruit the animal's strength:

Take of Peruvian bark, half an ounce;

Myrrh, in powder, two drs.

Gentian,

Aniseeds, of each half an oz.

Honey, enough to make them into a ball.

The horse must have gentle walking exercise, and good grooming, daily; and after his strength is returned, a dose of mild mercurial physic will be proper."

Gibson observes that horses have derived great benefit from the use of guaiacum, where the glandular discharges have been too liberal. "I had a fine horse (says he) committed to my care, that was sent a journey in wet weather, the day after the strangles broke. He discharged a gleety water from under his jaws, and matter of the same consistence at his nose, and this had continued for several months, so that he was become quite extenuated, and exceedingly weak; for the running under his jaw was so profuse, that the litter was continually wet under him. This horse was soon cured, and restored to perfect health and vigour, by strong decoctions of guaiacum. But I believe such cases as this seldom happen, and, indeed, very few horses would have stood it so long, but this was naturally a horse of great spirit and vigour, which no doubt contributed very much to his recovery." He also speaks of several young horses that had small loose kernels under the jaws, with a running at the nose, of a white matter, sometimes more, sometimes less, for a year or two, and sometimes they would be altogether free from it. In these cases, he says, the guaiacum decoctions were of great benefit.

STRANGURY. A disease whose characteristic symptom is a partial suppression of urine, but at the same time unaccompanied by fever, or other general symptoms.

It is the effect of irritation, occasioning a spasmodic contraction about the neck of the bladder. Mr. Denny recommends the following treatment.

"If much irritation prevails, take away four or five pints of blood, and give the following ball and mixture:

Take of Camphor, in powder, two drs.
Nitre, in powder,
Common soap, of each half an ounce ;

Balsam of Capivi, enough to make a ball.

Take of Gum arabic, in powder, two ounces ;

Tincture of opium, half an oz.

Simple peppermint water, two pints.

Dissolve the gum first in the mint water, and then add the tincture of opium.

Repeat this in the course of six or eight hours, if necessary ; taking the precaution of clearing the bowels with the following clyster :

Take of Tincture of opium, two drs.

Oatmeal gruel, three quarts ;

Common salt, four ounces ;

Olive oil, half a pint. Mix.

The horse's food should consist of bran mash, warm water, or gruel. The cure may also be promoted by applying fomentations of chamomile flowers to the perinæum."

When the stoppage of urine proceeds from matter in the bladder, derived from the kidneys, which happens in some colds, or after some kinds of fevers, Gibson recommends a decoction made with roots of marsh-mallows ; to which he adds nitre, gum arabic, &c. He says he never observed any stoppages that were insurmountable, either in the neck of the bladder or urethra in horses, as is usual in men, from gritty matter, stones, or ulcers. "These last (says he) are so rare, that among the great numbers I have been concerned with, I can remember only one instance of schirrus and sinuous ulcer, or rather cancerous, in the urethra of a horse, that spread itself through a considerable part of the cavernous body of the penis. This continued several years, but was never cured, neither could it admit of a cure at the time I was made acquainted with it."

STRIGIL, or STRIGILIS. An instrument to scrape off the sweat during the gymnastic exercises of the ancients, and in their baths : strigils were made of metals, horn, or ivory, and were curved ; some were made of linen. Something of this kind is used to remove the foam and sweat on a horse's body after a race.

STRING-HALT. An involuntary and convulsive motion of the muscles, which extend or bend the hough. When it seizes the outside muscles, the horse

straddles, and throws his legs outwards ; but when the inside muscles are affected, his legs are twitched up to his belly. Sometimes it is only in one leg ; sometimes in both. It generally proceeds from some strain or blow, and the cure is difficult, and seldom attended with success ; though, in the beginning, a string-halt may be removed with good rubbing and the use of fomentations, with daily but moderate exercise. The last refuge is usually the fire, which Gibson says has been known to answer at least so far as to prevent absolute lameness.

STUBBED.—A horse is said to have sustained this injury, when in hunting amongst the stumps of newly cut coverts and underwood, he is punctured, cut, or bruised, in any part of the foot, coronet, or fetlock, by some of the infinity of stubs with which newly cut copes so plentifully abound. When accidents of this kind happen, the applications must depend entirely upon the magnitude of the injury received. In all slight cases, amounting to little more than simple laceration, friar's balsam, tincture of myrrh, or even common vinegar, may soon close the mouths of the vessels, harden the surface, and effect a cure. Where swelling and inflammation ensue, poultices must follow ; and wounds must of course be treated as such.

STUB NETS. See **NETS**, page 560.

STUD is a term applicable to three distinct meanings, and is so used in its different significations. A stud, in its more extended acceptation, applies to an aggregate collection of horses, without giving priority to any particular sort ; as the person having a great number of horses, is said to have a very large stud ; but the term, in its divided and sub-divided state, proves more extensively comprehensive. One is in possession of a very expensive racing stud ; another has a numerous stud of hunters ; and a third, still more opulent, or still more fashionable, shall have a breeding stud to produce an annual supply for the two preceding.

STUMBLING is so great an imperfection in a horse, that it affects his intrinsic worth, in proportion to the readiness with which it is perceived. Horses having short forehands, large heads, and thick shoulders, are the most subject to this defect of any other formation : those low at the point of the withers, (which is called being lower before than behind,) in addition to the deficiencies already mentioned, are the worst of stumblers ; the whole forming such a combination of bad points,

as not to leave one enlivening hope of reformation.

SUMPTER HORSE. A name for a horse that carries provisions and necessities for a journey.

SUPPLE, in the manege. To supple a horse is to make him bend his neck, shoulders, and sides, and to render all the parts of his body more pliable.

SURBATING has been, till within a very few years, used to signify a hoof so battered, bruised, and worn, with bad shoeing, bad shoes, and sometimes with no shoes at all, that the horse, having hardly any feet to stand upon, was then said to be surbated; which, in more explanatory and comprehensive language, is neither more or less than the sole of the foot so completely destroyed, that a horse in such situation is now said to be foot-foulered, who was formerly said to be surbated.

SURFEIT, a term unknown to modern veterinarians, though, with those of the old school, of very extensive import. We must of necessity, therefore, stand indebted to some individuals of the former class for the following explanation of it. Bracken says, a surfeit is principally understood to be all such maladies or distempers as proceed from excessive and immoderate feeding, but especially upon unwholesome food, from cold and hard riding, &c. whereby a horse forsakes his meat, and is infected with hard swellings, which, if they happen to fall upon the joints, will in process of time occasion lameness and many other disorders.

Surfeits arise from various causes, but are commonly the effects of some diseases not attended to; or that have been ill cured. A horse is said to be surfeited, when his coat stares and looks rusty and dirty, though proper means have not been wanting to keep him clean. The skin is full of scales and dander, that lie thick and mealy among the hair, and is constantly supplied with a fresh succession of the same, for want of due transpiration. Some horses have hurdles of various sizes, like peas or tares. Some have dry fixed scabs all over their limbs and bodies; others a moisture attended with heat and inflammation: the humours being so sharp, and violently itching, that the horses rub so incessantly, as to make themselves raw. Some have no eruption at all, but an unwholesome look, and are dull, sluggish, and lazy. Some appear only lean and hide-bound, others have flying pains and lameness, resembling a rheumatism: so that,

in the surfeits of horses, we have almost all the different species of scurvy, and other chronical distempers.

The following method of cure, Gibson says, is usually attended with success in the dry species. First take away about three or four pounds of blood: and then give the following mild purge, which will work as an alterative, and should be repeated once a week or ten days for some time:—

Take of Socotrine aloes, six drachms, or one ounce;

Gum-guaiacum, half an ounce;

Diaphoretic antimony,

Myrrh, of each two drachms;

Make into a ball with syrup of buckthorn.

In the intermediate days, an ounce of the following powder should be given morning and evening in the feeds:—

Take of Cinnabar of antimony, finely powdered, half a pound;

Crude antimony, in fine powder, four ounces;

Gum-guaiacum, also in powder, four ounces.

Make into sixteen doses, for eight days.

This medicine must be repeated till the horse's coat is well, and all the symptoms of surfeit disappear. If the horse is of small value, two or three common purges should be given; and half an ounce of antimony, with the same quantity of sulphur, twice a day; or alterative balls, with camphire and nitre.

If the little scabs on the skin do not peel off, anoint them with the mercurial ointment; during the time of using which, it will be proper to keep the horse dry, and to give him warm water. This ointment properly rubbed into the blood, with the assistance of purging physic, has frequently cured these kinds of surfeit without any other assistance.

The wet surfeit, which is no more than a moist running eruption, appears on different parts of the body of a horse, attended sometimes with great heat and inflammation; the neck sometimes swells so in one night's time, that great quantities of hot briny humour issue forth, which, if not allayed, will be apt to collect on the poll or withers, and produce the poll-evil or fistula. This disease also frequently attacks the limbs, where it proves obstinate and hard to cure; and in some horses shews itself spring and fall.

In this case, bleed plentifully; avoid externally all repellers, and give cooling physic twice a week, as four ounces of le-

nitive electuary, with the same quantity of cream of tartar; or the latter with four ounces of Glauber's salts, quickened, if thought proper, with two or three drachms of powder of jalap dissolved in water gruel, and given in the morning fasting. After three or four of these purges, two ounces of nitre made into a ball with honey may be given every morning, for a fortnight; and, if attended with success, repeated for a fortnight longer. The powder above mentioned may be given with the horse's corn, or a strong decoction of guaiacum shavings, or logwood, may be given alone to the quantity of two quarts a day. These, and indeed all alterative medicines, must be continued for a long time, where the disorder proves obstinate.

The diet should be cool and opening, or scalded bran or barley; and if the horse is hide-bound, an ounce of fenugreek seeds mixed with his feeds should be given for a month or longer; and as this disorder often proceeds from worms, give the mercurial physic too, and afterwards the cinabar powders as already directed; but as, in general, it is not an original disease, but a symptom only of many, in the cure, regard must be had to the first cause: thus, as it is an attendant on fevers, worms, &c. the removal of this complaint must be variously effected.

SWAINMOTE is a peculiar court, appertaining solely to the laws of a forest, and held three times within the year. In this court the verderers preside in the official capacity of judges; for although the warden, or his deputy, may take their seats in the court, they have no judicial authority there. The court of swainmote may enquire of offences, receive informations, and proceed to conviction; but judgment is not within the limits of this court; their province extends no farther than to hear and to convict; judgment cannot be given but from the judgment seat, where the justice in eyre presides as chief officer; and all associated with him are called justices of the forest. This court being a court of record, can fine and imprison for offences within the forest; and therefore if the judgment is conceived erroneous, the record may be removed by writ of error into the court of King's Bench.

SWALLOWING, the act by which food is passed into the stomach of an ani-

mal. The superior part of the œsophagus in a horse is called pharynx, and is expanded at its top. Near this the œsophagus is situated more closely to the spine than the trachea, but about the fourth cervical vertebra, and appears parallel or below it. The œsophagus is continued into the chest, when it penetrates the diaphragm about the last true rib. The human œsophagus has been divided into circular and longitudinal fibres. In the horse we distinguish two parts—an internal merely cuticular, with little or no feeling or vascularity, and an external, which is powerfully muscular, and supplied with blood-vessels. The cuticular coat lines the pharynx, and is continued in the horse through the œsophagus, and afterwards covers that part of the stomach called the insensible. See **STOMACH**.

Mr. Lawrence gives the following account of the "swallowing of leeches, or hen's dung," by horses. He says—This accident frequently happens to country cart horses, passing off with a slight sickness, and without notice. Whilst the horses are absent, the poultry will always watch the opportunity of examining the mangers, where they leave both dung and feathers, which ought ever to be carefully swept away, previous to feeding the horses. Horses drinking at ponds will often suck in a variety of filth and vermin. The signs of having swallowed leeches, or other vermin, are, hanging the head to the ground, and a discharge of impure saliva, sometimes mixed with blood. Give a pint of sweet oil warmed, with a glass of brandy, and a drachm of ground ginger. Scalded bran and gruel, and the oil may be repeated, if needful. A mild dose of aloes and rhubarb, with one ounce of diapente, may be given in warm ale.

When any considerable quantity of fowls' dung and feathers has been swallowed, the horse will lose his appetite, swell in his body, and void fetid slimy matter from his fundament. The same medicines and treatment, with the addition of honey, are proper, with walking exercise, the horse clothed. Sow-thistle dried and powdered, smallage seed bruised, marjoram, and the ashes of the root, leaves, and fruit, of briony, were the specifics of former times.

SWAN, THE WHISTLING. The whistling or wild swan is somewhat smaller than the tame species. The bill is three inches

long; yellowish white to the middle, but black at the end. The whole plumage is white, and the legs are black.

This species is an inhabitant of the northern regions; never appearing in England except in hard winters, when flocks of five or six are now and then seen. Martin says, that in the month of October, swans come in great numbers to Lingey, one of the Western isles, and continue till March, when they return northward to breed. A few continue in Mainland, one of the Orkneys, and breed in the little islands of the fresh-water lochs; but the principal part of them retire at the approach of spring. They are called the countryman's almanack; for their quitting the isle is said to presage good weather, and their arrival the reverse.

In Iceland these birds are an object of chase. In the month of August they lose their feathers to such a degree as not to be able to fly. The natives, at that season, resort in great numbers to the places where they most abound; and are accompanied with dogs, and active and strong horses, trained to the sport, and capable of passing nimbly over the boggy soil and marshes. The swans will run as fast as a tolerably fleet horse. The greater number are taken by the dogs; which are taught to seize them by the neck—a mode of attack that causes them to lose their balance, and become an easy prey.

Notwithstanding their size, these birds are so extremely swift on the wing, when in full feather, as to make them more difficult to shoot than almost any other; it being frequently necessary to aim ten or twelve feet before their bills. This, however, is only when they are flying before the wind in a brisk gale; at which time they seldom proceed at less than the rate of one hundred miles in an hour; but when flying across the wind or against it, they are not able to make any great progress.

This species has several distinctions from that called by us the tame swan: but the most remarkable one is, the strange form of the windpipe; which falls into the chest, then turns back like a trumpet, and afterwards makes a second bend to join the lungs. By this curious construction, the bird is enabled to utter a loud and shrill note. The other swan, on the contrary, is the most silent of all the feathered tribes; it can do nothing more than hiss, which it does on receiving any provocation.—The vocal swan emits its loud notes only when flying or calling: its sound is, *whoogh, whoogh*, very loud and shrill, but not disagreeable when heard high in the air and modulated by the winds. The Icelanders compare it to the notes of the violin; they hear it at the end of their long and gloomy winter, when the return of the swans announces also the return of summer; every note therefore must be melodious which presages a speedy thaw, and a release from their tedious confinement.

It was from this species alone that the ancients derived their fable of the swan's being endowed with the powers of melody. Embracing the Pythagorean doctrine, they made the body of this bird the mansion of the souls of departed poets; and then attributed to the birds the same faculty of harmony which they had thus possessed in a pre-existent state. And the vulgar, not distinguishing between sweet-

ness of numbers and melody of voice, thought that real which was only intended figuratively,—The mute or tame swan never frequents the Padus; “and I am almost equally certain, (says Mr. Pennant) that it was never seen on the Cayster, in Lydia; each of which are celebrated by the poets for the great resort of swans. The Padus was styled *Oloriferus*, from the numbers of these birds which frequented its waters; and there are few of the poets, either Greek or Latin, who do not make them its inhabitants.”

SWAN, THE TAME OR MUTE. The mute swans are found wild in Russia and Siberia; in England they are very common in a domestic state. They are seen in great plenty on the Thames; where they are esteemed royal property, and it is accounted felony to steal their eggs. In the reign of Edward IV. swans were held in such estimation, that, “no person who did not possess a freehold of the clear yearly value of five marks” was permitted to keep any.

Nothing can exceed the beauty and elegance with which the swan rows itself along in the water, throwing itself into the proudest attitudes imaginable before the spectators; and there is not perhaps in all nature a more lively or striking image of dignity and grace. In the exhibition of its form, we see no broken or harsh lines, no constrained or abrupt motions, but the roundest contour and the easiest transitions imaginable: the eye wanders over every part with pleasure, and every part takes new grace with new postures.

The swan, with arched neck
Between her white wings mantling, proudly rows
Her state with oary feet.

It exhibits, however, but an inelegant appearance on land.

The swan will swim faster than a man can walk. It is very strong, and at times extremely fierce: it has not unfrequently been known to throw down and trample upon youths of fifteen or sixteen years of age; and an old swan, we are told, is able to break the leg of a man with a single stroke of its wing. A female, while in the act of sitting, observed a fox swimming towards her from the opposite shore: she instantly darted into the water, and, having kept him at bay for a considerable time with her wings, at last succeeded in drowning him; after which, in the sight of several persons, she returned in triumph. This circumstance took place at Pensey, in Buckinghamshire.

Swans are very long-lived, sometimes arriving at the great age of a hundred years. The flesh of the old birds is hard and ill-tasted; but that of the young, or cygnets, was formerly much esteemed.

The swan makes its nest of grass, among reeds; and in February begins to lay, depositing an egg every other day till there are six or eight. These occupy six weeks in hatching. Dr. Latham says, he knows two females that for three or four years past have agreed to associate; and have had each a brood yearly, bringing up together about eleven young: they sit by turns, and never quarrel.—When in danger, the old birds carry off the young ones on their backs.

SWAYING OF THE BACK. A kind of lumbago known by a pain and weakness in the loins of a horse. It may be caused by a fall, the carrying of some heavy burden, or some other violent accident; or a relaxation or spasm of the muscles of the back. The first thing to be done in this case, is to take away plenty of blood; after which a blister is to be applied, and those things given inwardly that promote sweat. Mr. Snape advises that the horse may be sweated in a dung-hill, if the common remedies fail. His diet must be opening, and all imaginable care taken to keep down a fever. He ought to be girt pretty firm over his loins, yet not so as to hinder the motions of his flanks. Gibson says, he ought also to be hung up, or kept in a steady posture; but if the weakness continues, you may proceed to the fire, by piercing the skin above the muscles that lie on each side of the spine, avoiding the flanks, otherwise it will be apt to creat a swelling in the sheath, which would bring on a fever.

SWEAT is the transpiration of perspirative matter through the skin by the effect of an increased circulation of the blood. This, in a moderate degree, is so conducive to the promotion of health, that those horses who regularly enjoy exercise to a proper state of perspiration, attain the highest condition; provided they are taken care of in proportion to the exercise each has had, or the work he has undergone. By the appearance of a horse in a high perspiration, immediate judgment may be formed of the property of his blood; and in a collateral degree, of the state of his health; for when a horse in good condition is under a profuse perspiration, the sweat is so congenially incorporated with the coat, (particularly if the horse is well bred,) and the hair lays so uniformly one way, that if the sun happens to shine, it seems a covering of satin: on the contrary, when a horse, after equal (or, in fact, much less) exertion, bears a greasy kind of perspiration upon the surface, with the coat turning in different directions, bearing a gross matted appearance, the blood is in an improper state, and the horse in very bad condition. Sweating a horse in the stable, by the ad-

ministration of medicine, is a practice, the propriety of which has not hitherto been clearly ascertained.

SWEATING FOR THE TURF. See RACE HORSE, TRAINING, THE.

SWEATING OF JOCKIES is a ceremony which every jockey is under the necessity of going through when engaged to ride, and the horse is to carry less than his own natural weight. For the reduction of weight, jockies are obliged to encounter great inconveniencies, particularly when they have much to lose, and a very short time to lose it in. The means of reducing themselves to the weight required are various, and depend upon the greater or lesser quantity they wish to lose in a given time, and have to waste themselves accordingly. If they have but two or three pounds to lose, they will waste that in a single day's abstinence, and a morning and evening's walking: should four or five pounds be required, a gentle laxative, followed by two or three days' extra walking, with an additional waistcoat or two, will generally carry their point: if more is necessary to be lost, it is sometimes a hazardous reduction, and great exertions are made to effect it: additional purgation, continued abstinence, increased perspiration, and almost perpetual exercise, all which, if persevered in to an extreme, tend to undermine the natural stamen by which the frame is supported, and absolutely saps the constitution. Instances have been numerous, where jockies have undertaken to waste fourteen or sixteen pounds, and even more, against the day of running.

SWELLED LEGS. See GREASE, &c.

SWELLING IN THE SHEATH OR GROIN of a horse externally in good health, and without any predominant symptoms of pain or disquietude, is sometimes of little consequence; denoting no more than a general plethora, or distension of the vessels, which immediate bleeding, followed by gentle friction, and moderate evacuants, may be expected to remove: but if it makes its appearance at the crisis of any inflammatory disorder, it may be considered as a very unfavourable prognostic, and the advice of a skillful veterinarian becomes necessary.

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TAIL. Upon the uniform shape and setting on of a horse's tail, his good or ill appearance greatly depends. When the spine is continued in a curvilinear

direction beyond the rump, and the basis of the tail is formed too low in the quarters, the horse is termed "goose-rumped;" and no nicking or setting, will

ever give him the figure of a handsome horse behind. It has been a long standing maxim, that "a good horse can't be of a bad colour;" and there may probably be some who think a good horse can't have a bad tail; but a little experience in buying and selling will convince them, that the difference between the two will be little less than ten or fifteen pounds in a horse of no more than fifty pounds value. Great losses are sometimes sustained for want of a little circumspection at the moment of making a purchase; and this may sometimes proceed from the horse's having some peculiar points of attraction, in the fascinating survey of which the defects are totally absorbed; hence arises the pecuniary deficiency when the subject becomes again to be sold, particularly if to a more prudent and less hasty purchaser. The old sportsman, when going to buy, looks at the horse as if it was really his own, and he was going to sell; in doing which, he estimates his saleable value with an eye of greater accuracy, makes a tolerably fair calculation what he ought with consistency to bid, that he may sustain no great loss, should he have future occasion to sell.

TANTERRA. An obsolete term, formerly applied to a hare when found sitting.

TARTAR EMETIC is one of the most powerful, and, in respect to horses, one of the most prostituted medicines in the whole materia medica: its name here is only introduced, and its properties described, that the sporting world, as well as individuals, may be sufficiently guarded against its dangerous effects, if injudiciously administered, or secretly brought into use by practitioners of little knowledge, and less celebrity, who knowing no more of its preparation than its name, know less of its effects than its preparation. With farriers or veterinarians of this description, it is become a favourite medicine upon so many occasions, that it stands entitled to a fair, candid, and unequivocal investigation. Emetic tartar, when administered to the human frame, with a design of producing the forcible effect of a strong emetic, has never, by professional men, of the most learned, distinguished, and experienced ability, exceeded six or seven; and in truly critical cases of dangerous emergency, eight grains may have been given.

Ten grains have been known to operate so violently as to excite convulsions; twelve, to occasion death.

Amidst such incontrovertible facts, it naturally becomes a serious consideration, that men, knowing nothing of the property of medicine, should have the unrestrained privilege and permission, of bringing into use articles of so much dangerous magnitude, not only without knowing their basis, preparation, and peculiar properties, but without the power of prognosticating their probable effects. It is a circumstance worthy the attention of those possessing a number of horses for either business or pleasure, (who must consequently have some occasionally labouring under disease,) how far it may be safe, proper, consistent, or discreet, to give a horse half an ounce of tartar emetic at one dose, which, according to the above ascertained facts, will, if divided accurately into equal proportions, (and the experiments made,) take away the lives of twenty men. Those who have ignorantly adopted this practice, as ignorantly and obstinately assert the impossibility of its doing any harm; without either not possessing the knowledge, or not giving themselves time to recollect, that if seven or eight grains will distress and exhaust the human frame, by every kind of violent and sensible evacuation, to the appearance of, and in some cases to, actual death; what must be the internally destructive ravages of twenty, or thirty times that quantity, thrown into the frame of an animal, who, not having, like the human species, power to regurgitate, or throw off the offending consequence by vomit, has no alternative, but to stand a comparative barrel of combustibles, ready to burst with the effervescent conflagration raised within, and which must, in a variety of cases, be evidently productive of certain death. But such practitioners have no character to support, no reputation to lose; and they likewise well know, that dead horses, any more than dead men, tell no tales.

TANTIVY. Compounded, we apprehend, of two Latin words, *tanta* and *vis*, which in the ablative become *tanta vi*; tantivy with as much haste as possible. In hunting, it is used to express full gallop or full speed.

THE TEAL is one of the most delicate birds that graces our tables, and has been sold for seven, and frequently sells for five, shillings a couple.

The male teal weighs about twelve ounces, the female nine; the length is fourteen inches, the breadth twenty-three; the bill is a dark lead colour, tipped with black; irides pale hazel; from the bill to the hind part of the head is a broad bar of glossy changeable green, bounded on the under part with a cream coloured white line, and edged on the upper side with pale brown; the rest of the head and the upper part of the neck are of a deep reddish chesnut; fore-part of the neck and breast dusky white, marked with roundish black spots; belly white, middle of the vent black; the wing coverts brown, quills dusky; the exterior webs of the lesser marked with a vivid green spot; above that another of black, and edged with white; the legs dirty lead colour. The female is of a brownish ash-colour; the lower part of the neck, and sides over the wing, brown, edged with white; the wing has a green spot like the male; the belly and vent both white.

It was at no very remote period supposed not to breed in England; but Mr. White, in his history of Selborne, has established the fact by some young teals being brought to him, which were taken in a pond on the verge of Wolmer forest. It is also known to breed in the mosses about Carlisle, as well as in Lancashire, and also in several parts of Cumberland. In France, where it stays throughout the year, it makes its nest in April, among the rushes on the edges of ponds, and which is composed of the tenderest stalks of the rushes, with the addition of the pith, and a quantity of feathers. The nest is of a large size, and placed on the surface of the water, so as to rise or fall with it; the eggs, to the number of from twelve to seventeen, are as large as those of a pigeon, of a dirty white, marked with small hazel spots: it is said to feed upon the grass and weeds which grow on the edges of waters it frequents; it will also eat the seeds of the rushes, and small fish; and the insects with which all stagnant waters are so abundantly stored. The teal is found to the north as high as Iceland, and is mentioned as inhabiting the Caspian sea to the south, and is every where deemed most excellent food.

Hearne says, like the mallard, they are found in considerable numbers near the sea coast at Hudson's Bay, but are more plentiful in the interior parts of the country, flying in such large flocks, that he has often killed twelve or fourteen, and has seen both English and Indians kill many more at one shot. At their first arrival they are poor, but generally esteemed good eating. He describes the teal as the most prolific of the water fowl at Hudson's Bay, having often seen the old ones swimming at the head of seventeen young, when not much larger than walnuts. The teal remains in these parts so long as the season will permit; for in his passage from Cumberland House to York Fort, 1775, he, as well as his Indian companions, killed them in the rivers they passed through so late as the twentieth of October; they were then entirely covered with fat, delicately white, and might be truly called a luxury.

TEAZLE, SIR PETER. See SIR
PETER TEAZLE.

TEMPER. This, in a horse, is what
ought very much to be regarded: because
if it be good it very much enhances his

TEETH. See AGE OF THE HORSE, p. 8.

value, whereas, if it be vicious, it exposes him to many accidents. "A sullen ill-conditioned horse," says Gibson, "endangers every one that comes near him; and very often will not spare his best friends. Some are only enemies to men, but with other horses are tractable and quiet. These have not always the most true courage, as I have often observed. They are continually in motion when any one approaches towards them, expecting to be corrected, and are therefore in a constant state of enmity and defence. Others are quiet and tractable to men, and yet are so mischievous to other horses, that they will scarcely suffer any one to come within their reach. Many of this sort have true mettle and courage, but expose both themselves and other horses to kicks and bruises, which prove troublesome, and sometimes expensive to the owner, whereas a horse of the truest courage is usually the best tempered, loving to his master and keeper, and never shews his mettle completely, but when he is urged on by some noble incentive, as in a chase or running match, where there are other competitors; for when he carries a good horseman, he will then discover a sort of complacency, and seem to act every way in concert with his rider. But the reader will be apt to question, how it is possible for any one to find out the temper of a horse without trial. It must indeed be confessed, that a man who has had but small experience, can know but very little of the temper of a horse, and even those who have had the most experience, can only guess upon a superficial knowledge of a horse, so as sometimes to avoid buying such when they offered to sale; for some horses are exceedingly sly and subtle, will shew but little of their temper when they are cautiously handled, and yet will take every opportunity to do mischief, as all who have been placed much among horses must have frequently observed. A vicious horse generally lays back his ears close to his poll, though this is not always a sure indication of vice, for sometimes a very harmless horse will lay back his ears merely out of ticklishness, or from a playful disposition, but at the same time, he puts back his ears, will look pleasant with his eyes, and with his mouth catch hold of the crib, whereas a vicious horse, at the same time he lays back his ears, shows the white of his eyes, and looks sullen and dogged. Some vicious horses have a manifest frown, which they discover at all times, and which gives

their countenance such an angry aspect, as will easily enough be discovered by those who have been accustomed to horses. Besides, such horses always stand as it were in a posture of defence, having their heads raised and lofty, and one of their hind legs advanced forwards resting upon the toe, ready to lash out at the first person that offers to come near them; and this may be further observed of a very vicious horse, that he never will give a pleasant look even to the person that feeds him.

Fear is another ingredient in a horse's temper, that must very much lessen his value. A fearful horse both endangers himself and his rider, more than a vicious horse that has courage. Almost every day affords us instances of people being hurt, and sometimes killed, by starting horses, and many such horses are utterly spoiled, by the accidents their fear exposes them to. Besides that, fear in a horse is hardly ever to be overcome until he grows very old and useless, or when he happens to be continually harassed with travelling, in the constant view of all manner of objects, and even then, any thing new and uncommon will still revive his natural failing. A fearful horse may be often known at first sight by his starting, crouching, and creeping.

A horse that is very hot and fretful, is no less to be avoided. But here I would distinguish between an eager horse, that strives to be the first in the chase, the foremost in the field, and one that goes always upon the fret, which is properly what I mean here. The one goes out calmly, and never shews his mettle till a proper opportunity offers. He has those qualities that resemble prudence and courage, the other intemperate heat and rashness. A hot-tempered horse begins to fret the moment he comes out of the stable, and continues in that humour till he has quite fatigued himself, which for the most part soon happens. Such horses are not able to endure much hardship, being for the most part but poor feeders, and when they come to go a journey they soon lose their flesh, have a carrion-like look, and seldom perform it without intervals of rest. They rarely last long, for this temperature exposes them to many accidents and diseases.

A dull phlegmatic horse is the very reverse of one that is hot and fiery, and his qualities are easily known, notwithstanding all the arts of the dealer to put life and spirit into him. A sharp pair of spurs,

the frequent cracking of the whip, a stimulus under his tail, will cause him to shew somewhat of mettle, and carry himself to the best advantage; but still any tolerable judge will easily perceive that all his action is forced, and not natural. He moves as if he was in a hurry, and yet with many tokens of heaviness. Never-

theless, some such horses are of more real value, and last much longer, than those that are hot and fretful, because they are seldom hurt with labour, nor expose themselves much to accidents; and, if they prove unfit for the saddle, they may be serviceable for many other purposes.

TENCH. By some the tench is termed the physician of the fish, and who believe, from tradition, that the slime is so healing, that the wounded apply it as a remedy, and that even the pike will spare the tench, on account of its healing powers; but, it is apprehended, this observation has no evidence to support it, and this supposed self-denial of the pike may be fairly attributed to a different cause; namely, that tench are so fond of mud, as to be constantly at the bottom, where they are probably secure from the attacks of their voracious neighbour; for, as all the different species are, in some degree, enemies to each other, it cannot be imagined that so timid a fish as the tench would passively admit the approach of the pike.

Without vouching for the virtue of its slime upon the inhabitants of the water, its flesh is undoubtedly a delicious and wholesome food to those of the earth. The tench does not commonly exceed four or five pounds in weight; Mr. Pennant says he has heard of one that weighed ten, and Salvianus speaks of some that weighed twenty pounds: it is thick in proportion to the length; the scales are very small, and covered with slime; the eyes are large, and of a gold colour; the irides are red; he is leather-mouthed, and sometimes there is a small barb at each corner of the mouth; the colour of the back is dusky, the dorsal and ventral fins of the same hue, and those of the male much bigger than those of the female; the head, sides, and belly of a greenish cast, most beautifully mixed with gold, (especially those taken in rivers) which is in its greatest splendour when the fish is most in season: the tail is quite even at the end, and very broad.

Tench love still waters, and their haunts in rivers are chiefly among weeds, and in places well shaded with bushes or rushes; but they thrive best in standing waters, where they lie under weeds, near sluices, and at pond heads; they are much more numerous in pools and pits, than in rivers, although those taken in the latter are far preferable; they begin to spawn in June, and may be found spawning in some waters till September; their best season is from that period until the end of May.

The tackle, in angling for the tench, should be strong; a swan or goose quill float, except in rivers, where the cork is always to be preferred; the hook, No. 4 to No. 6, whipt to a sound silk worm gut, with two or three shot ten or twelve inches from it; where there are weeds, fish about two feet deep, at mid water, and sometimes rather lower, (according as they are in the humour to take;) frequently drawing the bait gently towards the surface, and letting it sink in the slowest manner: bait with the small red-worms, taken out of rotten tan, without any scouring. Should there be no great quantity of mud at the bottom, use small clay-balls, with lob-worms, as directed

in perch fishing, and let the bait be six inches from the ground ; but where the mud is so deep as to cover the clay-balls when sunk, keep to the former method, and bait the spot with bits of lob-worms ; when using gentles, (which should be near the ground,) throw in some at the taking of every fish, which will not only entice them to bite, but be a means of keeping them together ; they should be allowed time in biting, before they are struck.

Some use the middle-sized lob or marsh worms, well scoured and dipped in tar, (which certainly has the property of alluring them,) previously ground-baiting the place with lob-worm and boiled malt, and fishing at bottom. Other baits for this fish are, the wasp-maggot, earth-bob, green-worm, shaken from the boughs of trees, paste of brown bread mixed with honey, and of white bread, in which a little tar is incorporated : the best time for angling is late and early, an hour before and after the rising and setting of the sun ; but in warm, foggy, mizzling weather, with a southerly wind, the tench will bite during the greater part of the day : the tench will live long out of water, and may with safety be removed in dry straw to a considerable distance.

Tench are said to love foul and muddy more than clear water.

A tench taken out of a piece of water, at Thornville Royal, Yorkshire, which had been ordered to be filled up, and wherein wood, rubbish, &c. had been thrown for years, was in November 1801, directed to be cleared out. Persons were accordingly employed, and almost choaked up by weeds and mud, so little water remained, that no person expected to see any fish, except a few eels : yet nearly two hundred brace of tench, of all sizes, and as many perch, were found. After the pond was thought to be quite free, under some roots there seemed to be an animal, which was conjectured to be an otter ; the place was surrounded, and on opening an entrance among the roots, a tench was found of most singular form, having literally assumed the shape of the hole, in which he had for many years been confined. His length, from fork to eye, was two feet nine inches ; his circumference, almost to the tail, was two feet three inches ; his weight, eleven pounds nine ounces and a quarter ; the colour was also singular, his belly being that of a charr, or a vermilion. This extraordinary fish, after having been inspected by many gentlemen, was carefully put into a pond ; but either from confinement, age, or bulk, it at first merely floated, and at last, with difficulty, swam gently away.

TENDONS are the elastic covering of the muscles, composed of an infinity of fibres, which, in their aggregate, form a substance of great strength, and appropriate contraction and elongation, for all the purposes of expansion and flexibility. The tendons in a horse most liable to injury and accident, are those passing down the shank bone of the fore legs, from nearly the back of the knee, to their seat of insertion at the fetlock joint, which are in general known by the name of the back sinews.

A wounded or punctured tendon, by thorn, stub, stable prong, or with any other instrument, is always attended with excruciating pain, and violent inflammation, producing the most dangerous symptoms. In such cases, it has been too much the practice to have immediate recourse to turpentine, and other spirituous applications, which is rendering the remedy worse than the disease. Warm, mild fomentations, emollient poultices, gentle digestives upon lint covered with tow, and

recourse to the most judicious and experienced practitioner to be obtained, constitute the only sound basis upon which even hope of recovery can be entertained.

TERMS IN SPORTING. As every sportsman, we have no doubt, feels anxious to become acquainted with the language, so, in our exemplification of sporting terms, we shall be diffuse rather than otherwise, and shall have occasion to introduce words which are become obsolete, as well as others, perhaps, which are only used in some parts of this country.

Terms for the lodging of beasts of chase.—A badger *earths*, a boar *couches*, a buck *lodges*, a coney *sits* or *earths*, a fox *kennels*, a roe *beds*, a hare *seats* or *forms*, a hart or stag *harbours*, a martern *trees*, an otter *watches*.

Terms for dislodging them.—To *dig* a badger, to *rear* a boar, to *rouse* a buck, to *bolt* a coney, to *unkennel* a fox, to *start* or *move* a hare, to *unharbour* a hart or stag, to *untree* a martern, to *vent* an otter.

Their noise at rutting time.—A badger *shrieks*, a boar *breams*, a buck *groans* or *troats*, a fox *barks*, a hare *beats* or *taps*, a hart *belleth* or *bells*, an otter *whines*, a roe *bellows*, a wolf *howls*.

For their copulation.—A boar goes to *brim*, a buck goes to *rut*, a coney goes to *buck*, a fox goes a *clicketting*, a hare goes to *buck*, a hart goes to *rut*, an otter *hunts* for his kind, a roe goes to *tourn*, a wolf goes to *match* or *make*.

Terms when they are in company.—A herd of harts and all kinds of deer, a *bevy* of roes, a *sounder* of swine, a *rout* of wolves, a *richness* of marterns, a *brace* or *leash* of foxes or hares, a *couple* of rabbits or coneys.

For the mark of their feet.—The *track* of a boar, the *view* of a buck and fallow deer, the *slot* of a hart or red deer, of all deer, if on the grass and scarcely visible, then it is called the *foiling*; the *print*, or foot of a fox; of a hare diversely, for when she is in open field she is said to *sore*, when she winds about to deceive the hounds she *doubles*, whenever the mark of the foot can be perceived, she is said to *prick*; and in the snow her path is called the *trace*. An otter *marks* or *seals*.

Terms of the tail. The *wreath* of a boar, the *single* of a buck, the *scut* of a hare or rabbit, the *brush* of a fox, and the tip at the end is called the *chape*; the *single* of a stag, the *stern* of a wolf. A fox's feet are called *pads*; his head, the *front*.

For their ordure.—The *lesses* of a boar,

the *fewmets* of a deer, the *billeting* or *fuants* of a fox, the *buttons* or *crotils* of a hare, the *sprints* of an otter.

Terms for the noises of hounds.—When hounds are thrown off, and hit upon a scent, they are said to *challenge*. If they are too busy before they find the scent is good, they are said to *babble*. If they run it endways, making it good, and hold it on well together, they are said to be in *full cry*. When hounds hang behind, and keep too much upon a particular place, they are said to *plod* or *tye*.

When a deer turns his head against the hounds, he is said to *stand at bay*.

Of greyhounds, two make a *brace*; of hounds, a *couple*; and of greyhounds, three make a *leash*; and of hounds, a *couple* and a *half*: they say let *slip* a greyhound, and *throw off* a hound.

The string or cord by which a greyhound is led, is called a *lease*; and that of a hound, a *leam*, *liam*, or *lyome*.

The greyhound hath his *collar*, and the hound his *couples*.

Of fox hounds, they say a *kennel*; of harriers, a *pack*; though the word *pack* is now used indiscriminately of either one or the other.

Those places are called *entries* where they find a deer has lately passed into thickets, by which also they form an opinion of their size.

When hounds hit the scent of their chase the wrong way, they are said to *draw amiss*; that is, in drawing: as when the game is up and the hounds scent it in the opposite direction, they are then said to run the *heel* or *hunt counter*.

When hounds take a fresh scent they are said to *hunt change*.

When the chase goes off and comes on again, traversing the same ground, it is said they hunt *foil*.

When hounds kill their game, and are suffered to eat the whole or part, it is called a *reward*.

When sportsmen endeavour to find a stag by the *slot*, and examine his step, they say they know him by his *gait*.

If hounds run without making any cry, they are said to run *mute*.

When hounds chase other game than that for which they are intended, and are otherwise unruly, they are said to *run riot*.

If a hare happen to take the ground like a coney, she is said to go to *vault*.

When a fox takes to the ground, if in a regular earth, he is said to be run to *earth*; but, if in a drain or some such place, he is said to be run to *ground*.

Hounds *draw* for a fox, and *quest* for a hare.

When, in running, the dirt sticks to a hare's feet, they say she *carries*.

When hounds find where the chase has attempted to enter, but has returned, it is called a *blemish*.

When the horn is blown to collect the hounds, it is termed a *call*. It is termed a *reckeat*, when the horn is blown to recall the hounds from a wrong scent. The *mort* is sounded at the death of a deer.

A hare is called, the first year, a *leveret*, the second year, a *hare*, and afterwards an *old* or *great hare*.

A fox is called the first year a *cub*, the second a *fox*, and afterwards an *old fox*.

Upon view of a stag, if he be a fine animal, he should not be called *fair*, but *great*; and so, a *great hind* and a *great buck*; but a *fair* or *comely* doe.

When a deer stops to look at any thing, he is said to *stand at gaze*; when he forceth by upon force, he *trips*; and when he runs a pace he *strains*. When he is hunted and leaves the herd, he *singles*; and when he foams at the mouth, he is *embossed*. When he swells or vents any thing, they say he hath this or that in the *wind*; when he holds out his neck at full length inclining, they say *he is spent*; and being killed, *he is done*.

The stag, buck, and boar, sometimes take soil without being forced, and all other beasts are only said to take *water*, except the otter, and he is said to *beat the stream*.

Blemishes are the marks to know where a deer hath gone in or out, and they are little boughs plashed or broken to hang downwards; for any thing that is hung up is called a *sewel*.

There is a great difference between the *frith* and the *fell*; the *fell*s being taken for the *vallies*, green *pasture*, and *moun-tains*; and the *frith*s, for *springs* and *coppices*.

There is also a difference between the words *ways* and *trenches*; for by the first is meant the high and beaten ways on the outside of a forest or wood; and by the word *trench*, a very small way, not so commonly used. There is likewise a difference between a *trench* and a *path*, which is a place where a deer has only left *slot* or *view*.

Of a stag and all kinds of deer, when killed, they are said to be *slain*, sportsmen say, *take off that deer's skin*. Of a hare, they say she is *stripped* or *cased*. A fox, badger, and all manner of vermin are

said to be *cased*, beginning at the snout or nose of the beast, his skin being turned over his ears down to the body till you come to the tail.

Terms for the attire of deer.—Of a stag, if perfect, the *bur*, the *pearls*, the *beam*, the *gutters*, the *antler*, the *sur-antler*, *royal*, *sur-royal*, and all at the top, the *croches*.

Of a buck, the *bur*, the *beam*, the *brow-antler*, the *back-antler*, the *advancer*, *palm*, and *spellars*.

If the *croches* grow in form of a man's hand, they are then called a *palmed-head*; three *croches* being placed aloft of one height, are called *crowned heads*. Heads having doubling *croches*, are called *forked heads*, because the *croches* are planted on the top of the beam like forks.

If you are asked what a stag bears, you are only to reckon the *croches* he bears, and never to express an odd number; for if he has four *croches* on his near horn, and five on his far, you must say *he bears ten*. If but four on the near horn and six on the far horn, you must say *he bears twelve*.

Of winged game, we say a *brace* of black game, or grouse, a *leash* of black game or grouse, a *pack* of black game, a *brood* or *pack* of grouse, to *raise* black game or grouse.

A *brace* of partridges, a *brace and a half* of partridges, a *covey* of partridges, to *spring* partridges.

A *brace* of quails, a *brace and a half* of quails, a *bevy* of quail, to *raise* quails.

A *brace* of pheasants, a *leash* of pheasants, a *ni*, (or *nid*) or *brood* of pheasants. To *push* or *spring* a pheasant.

A *couple* of woodcocks, a *couple and a half* of woodcocks, a *flight* of woodcocks, to *flush* a woodcock.

A *couple* of snipes, a *couple and a half* of snipes, a *wisp* of snipes, to *spring* a snipe.

A *team* of wild ducks.

A *gaggle* of geese.

A *wing* of plover.

A *trip* of dottrell.

A *sege* of herrons and of bitterns.

A *herd* of swans.

A *dropping* of sheldrakes.

A *spring* of teals.

A *covert* of coots.

TERRA A TERRA. In the manege, a series of low leaps, which a horse makes forwards, bearing side-ways, and working upon two treads. In this motion, a horse lifts both his fore legs at once; and when these are upon the point of descending to



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the ground, the hinder legs accompany them with a short and quick cadence, always bearing upon the haunches; so that the motions of the hinder quarters are short and quick; and the horse being always well pressed and coupled, he lifts

his fore legs pretty high, and his hinder legs keep always low, and near the ground. This manege is called *terra à terra*, because, in this motion, the horse does not lift his legs so high as in corvets.

TERRIER. It is natural enough to suppose that the terrier took his name from the avidity with which he takes the earth; particularly when in pursuit of his own game, which is vermin of every description. To the fox, badger, polecat, weasel, and rat, the terrier is the most implacable enemy. Of late years, terriers have been crossed with the bull dog, which has of course increased their strength and ferocity. The genuine terrier is employed in a business to which he seems peculiarly adapted. This is, in his subordinate attendance upon the chase. Terriers of the best blood are bred of all colours. There are also rough wire haired terriers, as well as smooth haired ones.

Few stables are to be met with without a terrier or two. Also with fox hounds, there is frequently to be seen a brace of terriers. With the hounds in endeavouring to find, as well as during the chase, their exertions are incessant and indefatigable. When a fox is run to ground, it is the province of the terrier to follow and *bay at him*; as, by the baying of the one at the other, the ear will soon be informed whether the fox lies deep or near the surface; and those who are employed in digging him out will be directed accordingly. Infidelity, sagacity, courage, as well as the most incredible endurance of fatigue and hunger, terriers are inferior to no ramification of the canine species.

An anecdote related by Mr. Hope, and well authenticated by other persons, would seem to shew that the terrier is capable of resentment when injured, and of great contrivance to accomplish it. A gentleman of Whitmore, in Staffordshire, used to come twice a year to town; and, being fond of exercise, generally performed the journey on horseback, accompanied most part of the way by a faithful little terrier dog, which, lest he might lose it in town, he always left to the care of Mrs. Langford, his landlady, at St. Alban's; and on his return he was sure to find his little companion had been well taken care of. The gentleman calling one time, as usual, for his dog, Mrs. Langford appeared before him with a woeful countenance: "Alas! Sir! your terrier is lost! Our great house dog and he had a quarrel; and the poor terrier was so worried and bit before we could part them, that I thought he could never have got the better of it. He, however, crawled out of the yard, and no one saw him for almost a week. He then returned, and brought with him another dog, bigger by far than our dog; and they both together fell on our great dog, and bit him so unmercifully, that he has scarcely since been able to go about the yard or eat his meat. Your dog and his companion then disappeared, and have never been seen since at St. Albans." The gentleman heard the story with patience, and endeavoured to reconcile himself to the loss. On his arrival at Whit-

more, he found his little terrier; and on enquiring into the circumstances, was informed that he had been at Whitmore, and had coaxed away the great dog, which, it seems, had, in consequence, followed him to St. Albans, and completely avenged his injury.

TETTER. Called by farriers the flying worm, or ring worm. It runs up and down the skin in different directions, from whence it receives its name. It is most commonly found on the rump, and runs down the joints of the tail: and if neglected is said to turn into a canker. It will now and then settle upon some fleshy part of the body, which will be attended with so troublesome an itching, as to make the horse rub against walls and posts, till he will bring away the hair and skin, and even tear his flesh with his teeth, if he can come at it. After all, however, this disease differs little, if at all, from the mange, and is to be cured by similar means.

THRUSH. In this disease, there is, in the foot of a horse, an inflammation of the sensible frog, occasioned either by contracted heels, the want of cleanliness in the part, or shoeing on erroneous principles; but most frequently the last.

The thrush may be known by a tenderness felt on pressing the frog, which is also accompanied with a discharge of matter.

The cure consists in removing the shoe, and lowering the heels so much that the frog may come in contact with the ground. After which, the horse should stand without shoes for several days; and the part should be washed two or three times a-day with a brush and soap lather, and afterwards dressed with the following ointment:

Take of Vitriol zinc,
Armenian bole,
Alum, of each, in powder, one ounce;
Tar, sufficient to form an ointment. Mix.

We are to apply this on lint between the cleft of the frog, and renew it occasionally.

TIRING. In all cases of this kind, bleeding, a cordial ball, a malt mash, and a little nursing, seem the only means most likely to promote a speedy restoration of strength and spirits.

TOILS. Park nets of great strength and magnitude are so called. They are used in taking deer alive for removal from one place to another. Similar nets were formerly used for inclosing wild beasts.

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TONGUE. The tongue of a horse is sometimes lacerated by the bit of the bridle being too narrow in the mouth piece; as also by the frequent petulant jerks of the rider. These, which are slight in the first instance, are occasionally repeated, till they become ulcers, with a slough in the middle of each. In these cases, the tongue should be held on one side, while the part is touched daily with a strong solution of borax in water, till the slough falls off; when it may be cured with equal parts of honey and tincture of myrrh, well incorporated with each other.

TRACK is the term used to imply the footmark of either man or beast; but, in the language of the field it admits of some deviation. We *track* a man or an ox; we *slot* a deer, we *foot* a fox, and we *prick* a hare.

TRAIL. A term in hare hunting, and signifies hunting a hare to her form. When hounds are thrown off, if hares are plentiful, the trail, or track by which the hare has gone to her seat, is soon hit upon by some of the hounds, which *give tongue*; they are soon joined by the rest of the pack, and thus the hare is hunted up to her seat and started.

TRAIL SCENTS or DRAGS. These are formed of various articles; a slice of bacon, or a red herring, impregnated with oil of aniseed; or merely a burnt bone will answer the purpose. Any of these will lead hounds in full cry across any country over which it is directed. But to accustom hounds to a trail scent or drag is to ruin them.

TRAINERS. A modern trainer is a personage of the most mysterious and the utmost importance. His appearance is vulgar; but he makes up for his vulgarity in affecting a sort of semi-solemnity of aspect, which, unlike the critical conjunction of Longinus, is referable, not to the sublime, but to the arch and the ridiculous; while, with slight, but significant, nods, ornamented by sententious oracles, he endeavours to impress on the minds of others his uncommon weight in the scale of creation, and the dignity with which he moves through infinite space!

To be serious. Trainers, generally speaking, are men with scarcely preten-

sions to a common village education ; but from frequent contact with men of wealth and distinction, by whom, of course, they are principally employed, and occasionally consulted, they conceive themselves beings of a very superior order, whose avocations they endeavour to convert into a profound and secret science, as impenetrable as the mysteries of Eleusis ! They are superlatively ignorant for the most part ; but, skilled in cunning and trick, they are very rarely over-reached in driving a bargain. Self interest is their ruling passion—this is never over-looked ; and, it is not merely in swelling up a bill that they display uncommon dexterity, as they are equally adroit in the various ramifications of their suspicious calling.

The preceding observations are scarcely intended to include a class of men, who are, what I call, the domestic servants of those who keep race horses, (and who attend to the stud) at least while they continue in the employment of men of character and distinction. Further, amongst the great number of trainers at present in the kingdom, there may be found a *few* honourable exceptions.

The subject of trainers will of course present to the mind a number of strange circumstances which have taken place, particularly the affair of Bessy Bedlam, at Doncaster meeting for 1828 ; nor indeed am I entirely without my suspicions respecting Velocipede on the same occasion. At all events, it behoves owners of race horses to pay some personal attention to their training, and neither to allow the trainer unlimited power, nor yet be governed entirely by his suggestions, unless, indeed, such suggestions are accompanied by something like good reasoning. A trainer is always to be viewed with suspicion ; and on no account would I place a horse in the stables of a trainer, who was himself the owner or part owner of a race horse. Trainers, from their very occupation, have more the means of ascertaining the qualities of horses generally than other persons : they can place their horses accordingly, to say the least of it : and therefore, whenever a trainer becomes the owner of a running horse, all confidence in his integrity must vanish.

TRAINING HORSES. See **RACE HORSE**, **TRAINING THE**.

TRAINING DOGS FOR THE GUN. See **BREAKING DOGS**, page 80.

TRAMMEL NET. See the article **NETS**, page 560.

TRAMMELS are a collection of side

and cross lines, having leather loops at the ends, with which horses were formerly trammelled for the operations of nicking, docking, &c.

TRESPASS. See the article **GAME LAWS**.

TRIAL. It is a custom with owners of race horses to endeavour to form some tolerable idea of the speed of their colts and fillies, before they become subscribers to large stakes. To acquire information so absolutely necessary for the regulation of future proceedings, there is only one sure and certain criterion upon which reliance can be made to avoid deception. This is to obtain a confidential trial against some horse, whose superiority upon the turf is established.

Trials between horses of superior qualifications, preparatory to their being engaged in matches or stakes of magnitude, are always considered matters of great consideration, and for which the most serious preparations are made. Upon the issue of such trials, engagements are sometimes entered into, upon the termination of which, many thousands eventually depend. It is therefore a matter of indispensable necessity, they should not only be run with the most energetic opposition, but that the superiority in speed should be fully and clearly ascertained. Trials of this description are always conducted with the utmost secrecy ; for the better preservation of which, they generally take place at the very dawn of day, so soon as the lads can see to ride with safety ; and these trials are considered of so much consequence at Newmarket, that if any feeder, rider, groom, stable-lad, or any other person concerned, is known to discover the result, or shall be detected in watching trials himself, or procuring other persons so to do, he is dismissed the service of his master with every stigma of disgrace, and rendered incapable of being again employed by any member of the jockey club in any capacity whatever.

TRIPPING. A horse which goes near to the ground, is subject to tripping against every little prominence that happens to lie in his way. Many well-bred horses, exceedingly dull and indolent in a walk, overcome with ease all those trifling impediments, when put into a more enlivening and emulative action. This imperfection always displays itself most in slow paces, which is one predominant reason why a dealer is invariably anxious to let his horse, when shewn out, be seen in a trot or gallop. Horses excellent in their

fast paces, are sometimes bad walkers; but instances are very rare, where a good walker is deficient in superior qualifications. It is a remark justified by long and attentive observation, that most thorough-bred horses are sluggish stumbling walkers; they are therefore considered dull and dangerous roadsters. Horses with upright shoulders are the most liable to stumble and fall.

TROTTING is one of the natural paces of a horse, which, in respect to speed, is wonderfully to be improved by constant practice; and it being a favourite pace with almost every horse of common description for the purposes of the road, they are observed to enjoy it, in proportion as they excel their companions or opponents.

It is a long-standing remark, that "a butcher always rides a trotter;" and why is it? because butchers invariably make them so: they in general ride them no other pace: they all know they have the credit of "making trotters," and they are incessantly alive to the preservation of their professional reputation.

Famous trotters have undoubtedly been produced from different parts of the kingdom; but Essex, Suffolk, Cambridgeshire, and Norfolk, are said to have exceeded all others in their proportion; and this may probably with justice be attributed to those famous trotting stallions, Old Shields, Useful Cub, and Hue and Cry, who principally covered that scope of country. The celebrated trotter, Archer, was descended from Old Shields; he was a remarkably strong horse, master of fifteen stone, and the fastest trotting horse of his time; but was cruelly destroyed, by being inhumanly matched to trot upon the road sixteen miles within the hour in the midst of a very severe frost; the poor persevering animal performed it in less than fifty-five minutes; but the violent concussions sustained by the body, and the battering upon the feet by the dreadfully hard state of the road, produced symptoms which soon put a period to his existence.

A brown mare, the last proprietor of

whom was Mr. Bishop, trotted upon the Epsom road sixteen miles in fifty-eight minutes and a half, carrying twelve stone; and it was then said to have been the first time that distance had ever been trotted within the hour. In 1791, being eighteen years old, she trotted on the Essex road, sixteen miles in fifty-eight minutes and some seconds, beating a famous trotter of Mr. Green's for fifty pounds. A grey mare called the Locksmith's, trotted seventy-two miles in six hours. In 1793, a grey mare of Mr. Crocket's trotted one hundred miles in twelve hours, and had twenty minutes to spare. A five year old, son of Young Pretender, (who was got by Hue and Cry,) trotted in Lincolnshire, sixteen miles in fifty-nine minutes, carrying fifteen stone.

In 1797, Mr. Dyson made a bet of 100 guineas with Mr. Fagg, that he would produce a mare which should trot upon the road between Cambridge and Huntingdon seventeen miles within the hour: the experiment was made on the 7th of August, in that year, and the mare lost by one minute and four seconds only. On the 13th of June, 1799, a trotting match was decided over Sunbury common, between Mr. Dixon's brown gelding and Mr. Bishop's grey gelding, carrying twelve stone each, which was won by the former, having trotted the eight miles in twenty-seven minutes and ten seconds. Extraordinary as these performances have been, no less entitled to recital is a bet made by Mr. Stevens, which was decided on the 5th of October, 1796, that he would produce a pair of horses, his own property, that should trot in a tandem from Windsor to Hampton Court, a distance of sixteen miles, within the hour; notwithstanding the cross country road, and great number of turnings, they performed it with ease in fifty-seven minutes and thirteen seconds. Phenomena trotted nineteen miles in an hour. The American trotters, however, excel all others—many of them can trot twenty miles within the hour.

TROUT. The general shape of trouts is rather long than broad: in several of the Scotch and Irish lakes and rivers, they grow so much thicker than in those of England, that a fish from eighteen to twenty-two inches will often weigh from three to five pounds. The trout is a fish of prey, has a short roundish head, blunt nose, mouth wide, and filled with teeth, not only in the jaws, but on the palate and tongue: the scales are small, their back is ash-colour, the sides yellow, and when in season, is sprinkled all over the body and co-

vers of the gills with small beautiful red and black spots ; the tail is broad.

There are several sorts of trout, differing in their size, (for in many of the smaller streams there are trouts that always continue small, but are very great breeders,) shape, and hue ; but the flesh of the best is either red or yellow when dressed : the female fish has a smaller head and deeper body than the male, and is of a superior flavour. In fact, the colours of the trout and its spots vary greatly in different waters and at distinct seasons, yet each may be reduced to one species. In Llyndivi, a lake in South Wales, are trout called Coch-y-dail, with red and black spots as big as sixpences ; others unmarked, and of a reddish hue, that sometimes weigh nearly ten pounds, but are ill-tasted. In Lough Neah, in Ireland, are trout called Buddaghs, which rise to thirty pounds ; and some (probably of the same species) are taken in Ulls-Water, in Cumberland, of still greater weight ; and both these are supposed to be similar with the large trout of the lake of Geneva, a fish, says Mr. Pennant, which I have eaten of more than once, and think very indifferent.

A trout taken in Llynallet, in Denbighshire, which is famous for its excellent kind, was singularly marked and shaped ; it measured seventeen inches in length, depth three inches and three quarters, and weighed one pound ten ounces ; the head thick, nose sharp, both jaws, as well as the head, of a pale brown, blotched with black ; the teeth sharp and strong, dispersed in the jaws, roof of the mouth, and tongue, (as is the case with the whole genus, except the gwiniad, which is toothless, and the grayling, which has none on the tongue ;) the back was dusky, the sides tinged with purplish bloom, both above and below the side line, which was straight and marked with deep purple spots, mixed with black. The belly was white ; the first dorsal fin was spotted ; the spurious fin brown, tipped with red ; the pectoral, ventral, and anal fins of a pale brown ; the edges of the latter white ; the tail very little forked when extended.

Some peculiar remarks upon the various sorts of trout in the northern counties of England, and of their growth and age, have been given by a very experienced angler, to the following effect :—That he does not undertake to determine whether the river and burn trout are of one species : in many points, the trout taken out of the same river and same pools will agree, and in some shall vary ; so that, if the difference were owing to the water or food, he could say nothing against their being of one species : he believes they spawn promiscuously together, are all similar in shape, in the number of their fins, and their fins being disposed in the same places. Whether the colour of the spots makes any specific variety, he leaves to the decision of naturalists ; but, in his opinion, the so much esteemed charr, both red and white, is only a meer or marsh trout, and the colour perhaps owing to the sex. In several of the northern rivers, he has taken trouts as red and as well tasted as any charr, and whose bones, when potted, have dissolved, like those of the charr. That about Michaelmas he had caught trouts of a copperish hue, without spots ; the flesh, when dressed, was like bees' wax, and well tasted : that like-

wise in April he took one of these trouts twenty-eight inches long, and thick in proportion, which boiled yellow, but was equally good; and this, he thinks, was the bull-trout mentioned by Walton, and several authors, as extraordinary both for its size and goodness, and to be found no where but in Northumberland. He records a still larger fish caught in the same river (the Cocquet) by him in September, near Brenkburn Abbey; the length, which was nearly a yard, did not strike this gentleman so much, as the bright spots upon the lateral line; by which it appeared to him to be an overgrown burn-trout, and neither a salmon, salmon-trout, nor the same with those two he thought were the bull-trout.

Walton mentions the Fordwich trout, taken in the river Stour, of which only one instance was ever known of its being caught by the angle: it is said to be delicious eating: one weighing twenty-six pounds, and of a most beautiful colour, was taken with a net in December, 1797; they grow to a large size.

Another trout in Northumberland, called the whitling, the former gentleman describes as being from twelve to twenty inches long, shaped exactly like the salmon, and being red and high-flavoured as the charr; he has taken many of them with the fly, and with night lines, in the Tweed and the Wensbeck, but never with any spawn in them, which induced him to consider them salmon smelts, that had been to the sea and returned to the fresh water in the same summer, and which the following spring would be what is termed a gilse, or year old salmon: none of them had spots either red or black, which the burn and salmon trouts have; but the fishermen of the Tweed flatly contradicted his suggestions by positively affirming that none were ever known to grow above twenty inches long.

The burn or river trout, he says, with plenty of food and good water, grows rapidly: several experiments were made in ponds fed by river water, and some by clear springs, into which the young fry have been put at five or six months old, (that is, in September or October, reckoning from April, when they first come from the spawning beds,) at which time they will be six or seven inches long: in eighteen months the change has been surprising: he has seen a pond drained ten months after being thus stocked, which was in July, when the fish were fifteen months old; some were fifteen or sixteen inches, others not more than eleven or twelve: the fish were returned into the pond, and it was again drained the March following, when some were twenty-two inches, and weighed three pounds; others were sixteen inches, and some not more than twelve. To what, asks this gentleman, can we attribute this difference? In water, food, and weather, they all fared alike: his opinion is, that the fry were the produce of trouts of various ages, and that the older and larger the parents, the more speedy is the growth of their offspring.

In some rivers, trouts begin to spawn in October, but November is the chief month; the end of September they quit the deep water to which they had retired, during the latter part of the hot weather, and make great efforts to gain the source of the currents, (they also swim up brooks, where they are too often destroyed by the poacher,

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who is always upon the watch, and is sure to cause terrible havoc at this season,) seeking out proper places for spawning: this is always upon a gravelly bottom, or where gravel and sand are mixed among stones, towards the end and sides of a stream, and in lakes, &c. where the bottoms are gravel, among weeds, where they make themselves beds and deposit their ova; (they are very prolific, and the spawn is most eagerly sought after and devoured by the grayling;) at which period they turn black about the head and body, and become soft and unwholesome; in fact, they are never good when big with roe, which is contrary to the nature of most other fish: after spawning they become feeble, their bodies wasted, and those beautiful spots, which before adorned them are imperceptible; their heads appear swelled, and the eyes dull, (and Mr. Pennant says, the under jaw is subject, at certain times, to the same curvature as that of the salmon). In this state they seek still waters, and continue there sick, it is supposed, all the winter; a prey also to vermin, which breeds upon and keeps them poor.

In March, or if mild open weather, in February, trouts begin to leave their winter quarters, and approach the shallows and tails of streams, where they cleanse and restore themselves to health: as they acquire strength, they advance still higher up the rivers, until they fix upon their summer residence, for which they generally choose an eddy, behind a stone, a log, or bank that projects forward into the water, and against which the current drives; whirlpools and holes into which sharps and shallows fall, under roots of trees, and in places shaded by boughs and bushes; in small rivers they frequently lie under sedges and weeds, especially in the beginning of the year, before their perfect strength is recovered: but when in their prime, they feed in the swiftest streams, and are often found at the upper end of mill-pools, at locks, flood-gates, and weirs, also under bridges, or between two streams running from under their arches, and likewise in the returns of streams, where the water seems to boil; in the decline of summer, they lie at mill-tails, or end of other streams, and in the deep water.

Trouts may be said to be in season from March to September; they are fattest from the middle of August until the latter month, from their having fed upon the spawn and young fry of various fish: which constitutes their firmness and flavour. Some however contend, that their prime season is in May; but in that month and in June they so glut themselves with flies, as to cause a flabbiness which they neither have at the end of April, nor at the time above mentioned.

There are few fish that afford the angler such diversion, or require more skill to take them, than the trout: (such is the passion to fish for them, that the liberty of angling in some of the streams in the adjacent counties is purchased at the rate of ten pounds per annum by the amateurs of the metropolis;) they are at all times exceedingly circumspect, and it will be in vain to angle when the water is low by being kept up at the mills, as they then retire under the banks and roots, refusing all baits. In a cloudy day, after a gentle shower,

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when the mills are going, they will freely take minnows, worms, and flies of all kind in their proper season: in March or April, angle for them with the worm in the forenoon, and with a fly or minnow, according to the state of the water, the rest of the day; in the swiftest and sharpest currents, provided the day be warm and bright, and in the deeps early and late; but if the water be discoloured or very thick, try the gravelly shallows, near the sides and tails of streams, with a worm only, to run on the bottom with one large shot a foot at least from it. When there is a small fresh, or the water is clearing off, and is of a dark brownish colour, first use the worm, (which should be a well-scoured brandling, cast in as a fly at the head of the stream, and moved gently towards you, still letting it go down with the current, so as to keep it a little under water; the line should be rather short, with no lead upon it, and the hook fine,) then the minnow, and as the water clears, the artificial flies.

When the water is clear and low in sultry weather, the beetles, blue-bottle, palmer, cad-bait, wood-fly, earth-bob, &c. may be successfully used. Barker has left directions in night angling for trout, where the most killing baits are specified; his account states, that being solicited by a nobleman, who was his patron, to get a dish of trout against the next morning, he set off to the river, and describes his progress there as follows: "It proved very dark; I threw out a line of three silks and three hairs twisted for the upper, and two hairs and two silks for the lower part, with a good large hook. I baited my hook with two lob-worms, the four ends hanging as meet as I could guess them; I fell to angle; it proved very dark; so that I had good sport, angling with the lob-worms as with flies on the top; you shall hear the fish rise on the top of the water, then you must loose a slack line down to the bottom, as nigh as you can guess; then hold your line straight, feeling the fish bite; give time, there is no doubt of having the fish; for there is not one amongst twenty but doth gorge the bait; the least stroke fastens the hook, and makes the fish sure; letting the fish take a turn or two, you may take him up with your hands. The night began to alter, and grow somewhat lighter; I took off the lob-worms, and set to my rod a white palmer fly, made of a large hook; I had good sport for a time, until it grew lighter, so I took off the white palmer, and set to a red palmer, made of a large hook; I had good sport until it grew very light, then I took off the red palmer, and set to a black palmer; I had good sport, made up the dish of fish, so I put up my tackles, and was with my Lord at his time appointed for the service.

These three flies, with the help of the lob-worms, serve to angle all the year for the night, observing the times as I have shewed you in this night's work, the white fly for darkness, the red fly in medio, and the black fly for lightness. This is the true experience for angling in the night, which is the surest angling of all, and killeth the greatest trouts. Your lines may be strong, but must not be longer than your rod*.

* Night fishing with a fly is best from May to the end of August; but the largest



THE TROUT STREAM.

The rod for general trout fishing should be from fourteen to sixteen feet, the lower part of well seasoned ash or hazel, large enough to be so bored, as to hold a stiffer top for minnow and worm angling, and towards the butt-end for the reel to fasten on properly; the middle should be good yew or hickory, the top of the same nicely spliced, and about half a foot of round tortoise-shell properly lessened to the end, and the rod neatly ringed in the same manner as that for salmon; it must be regularly taper from bottom to top, with a good spring, and pliable almost to the hand for fly-fishing.

TRUMPATOR. A black horse, foaled in 1782; bred by, and the property of, the Right Hon. Earl of Clermont.

Trumpator was got by Conductor; his dam, Brunette, by Squirrel; grandam, Dove.

At Newmarket second October meeting, 1784, Trumpator beat Mr. Pantan's Usurper, 7st. 10lb. from R. M. Post, to the Post in the Furzes, 100gs.—two to one on Trumpator.

At Newmarket first spring meeting, 1785, Trumpator won the second class of the prince's stakes of 100gs. each, h. ft. for three years old; colts, 8st. 3lb. fillies, 8st. A. F. beating Lord Egremont's brown colt, by Highflyer, out of Angelica; Duke of Grafton's Spartacus; Mr. O'Kelly's Clarionet, Lord Grosvenor's Roundelay, and Lord Derby's Inca:—two to one against Spartacus, three to one against Clarionet, and seven and eight to one against Trumpator. In the first Oct. meeting he won the Clermont stakes of 25gs. each, for 3 years old; colts, 8st. 2lb. fillies, 8st. A. F. (five subscribers,) beating Mr. O'Kelly's Butterfly, and Duke of Cumberland's chesnut filly, by Eclipse, out of Pomona:—three to one on Trumpator. In the Houghton meeting, at 8st. 7lb. he beat Mr. Bullock's Balloon, 8st. 5lb. A. F. 500gs.:—seven to four on Balloon.

At Newmarket first spring meeting, 1786, Trumpator beat Lord Grosvenor's Vulcan, 8st. 7lb. each, B. C. 200gs.:—seven to four on Trumpator. In the same meeting, he won the claret stakes of 200gs. each, h. ft. 8st. 7lb. B. C. (five subscribers,) beating Mr. Douglas's Rasper:—four to one on Trumpator. Next day, at 8st. he received ft. from Mr. Wyndham's Guyler, 8st. 7lb. A. F. 200gs. h. ft. On Tuesday, in the second spring meeting, he beat Lord Grosvenor's Alexander, 8st. each, B. C. 500gs.:—five to four on Alexander. Same day, he received 15gs.

compromise from Duke of Grafton's Spartacus, 8st. 7lb. each, B. C. 300gs. h. ft. On Saturday, at 8st. he beat Lord Grosvenor's Premier, 5 years old, 8st. 10lb. Ab. M. 200gs.:—six to four on Premier. In the second October meeting, at 8st. 6lb. he received forfeit from his R. H. the Prince of Wales's Mountebank, 8st. 8lb. A. F. 200gs. h. ft. Those were the only times of his starting that year. He started four times besides the above, and was beat, viz. at Newmarket second spring meeting, 1785, by Lord Grosvenor's Vulcan, for a sweepstakes of 200gs. each, A. F. but beat Mr. O'Kelly's Cherry. In the same meeting, for the main of the prince's stakes of 200gs. each, h. ft. A. F. by Mr. Wyndham's Guyler, Mr. Bullock's Balloon, and Duke of Grafton's Spartacus. At Ascot Heath, by Lord Grosvenor's Roundelay, for a sweepstakes of 50gs. each, h. ft. one mile, but beat Mr. Bullock's Balloon, Lord Grosvenor's Grant-ham, and Mr. O'Kelly's Clarionet. And in the first October meeting, Mr. Pleasant's grey filly, by Highflyer, dam by Match'em, for the Perram purse, D. I. but beat Duke of Grafton's Oberon, Lord Grosvenor's Alexander, Mr. Lade's Pilot, Mr. Vernon's Mousetrap, Prince of Wales's Figaro, Mr. Hale's Icarus, Mr. Pantan's Wasp, and Mr. Fox's Melon.

Trumpator was a stallion at Chippenham, near Newmarket, in 1787, 1788, 1789, 1790, and 1791, at 5gs. and 5s. At Clermont Lodge, near Brandon, Norfolk, in 1792, at 15gs.; 1793, at 10gs. and a half; 1794 and 1795, at 15gs. and a half; 1796, at 10gs. and a half; 1797 and 1798, at 12gs. and a half; 1799, 1800, 1801, and 1802, at 10gs. and a half; 1803 and 1804, at 8gs. and a half. At Rockingham Castle, Northamptonshire, in 1805 and 1806, ten mares besides those of his owner at 10gs. and a half. At Newmarket, in 1807, twenty mares at 16l.

fish are caught in the latter month. Trout will take in the dark nights of any of the subsequent months, provided they are soft and calm.

1808, was to have covered twenty mares, at 20gs. each, but died May 7, in that year, and was buried at the end of the Clermont course.

TUMOURS are preternatural enlargements in any part of the body or extremities of a horse, occasioned by external injuries, or arising from internal causes, requiring different modes of treatment, according to appearances, or the means by which they have been produced. Swellings proceeding from blows, bruises, and other accidents, are, in general, merely temporary, and submit to such cool repellents, and mild astringents, as are usually applied upon such occasions; but not submitting in a few days, a formation of matter may be suspected, and should expeditiously be promoted; for which purpose, fomentations, poultices, and patience, are the only aids required.

TUNNEL NET. This is a large net used by poachers for taking partridges in the night. The tunnel net was generally made about fifteen feet in length, and twenty inches deep, and was formed with two wings, so that when they were extended and fixed to the ground by pegs or stakes prepared for the business, the net formed an angle with the tunnel or flue in the middle. As a preparatory measure for the use of this net, it was necessary to ascertain, if possible, where the covey slept; which being accomplished, towards midnight, the net was placed in a particular part of the field, and a horse employed for the purpose of driving the birds into it. A bridle being put upon the horse, the poacher tucked up the skirts of his coat, and placing his right hand upon the horse's withers, was enabled thus to guide him, keeping step, at the same time, with the movement of the horse's fore legs. Thus the field was traversed till the covey was found. The off or farther side of the horse was presented towards the birds, and they, to avoid being trod upon, would move from the spot where they had taken up their quarters for the night, and run, but not take wing; for as they perceived nothing but the horse, they apprehended no further danger than being trodden under his feet. The horse was made not only to follow the birds; but he was manœuvred in such a way as to drive them towards the net, into the tunnel of which they were ultimately driven, and the whole covey thus captured. Almost any horse would answer the purpose, very little training was necessary; and, what appears strange,

many of the horses used for this species of nocturnal depredation, became extremely fond of it. The tunnel net has been in a great measure laid aside, and the more rapid, but less certain, method of the drag net substituted for it.

TURF. The turf, when used in a sporting sense, is intended to imply whatever appertains solely to the pleasure of horse racing, without any collateral signification whatever; custom having established three concise terms, by which the distinct sports may be fully comprehended, and the intentional meaning perfectly understood. The *sod* is known to be fully expressive of cocking; the *field*, of hunting; and the *turf*, of racing; these being the admitted technical terms of the sporting world, to which none else make the least pretensions.

Prior to the reign of James I. horse racing, though it occasionally took place, appears to have been conducted upon no regular principle; and, therefore, we may very reasonably regard the origin of the English race course as coeval with the reign of this monarch; who, in defiance of his real or affected piety, seems to have been attached to the amusements of the turf. Hence it may be presumed that horse racing in Scotland had become a regular and general diversion before the time of this prince, during whose reign, courses were formed and prizes were run for in various parts of this country, particularly in Yorkshire; and also at Croydon and Enfield.

"The first Arabian, which had ever been known as such in England, was purchased by the royal jockey, of a Mr. Markham, a merchant, at the price of five hundred pounds.—That illustrious master of the science of equitation, the Duke of Newcastle, in his treatise, describes this Arab as a little bay horse, of ordinary shape, and judges he was good for nothing, because, being trained and started, he could not race, but was beaten by every horse which ran against him. As to the wonder expressed that Arabian horses should not have been brought earlier into England, it is merely perhaps that the name was omitted, as Arabs were generally sold in those markets of the Levant, where horses were purchased for Europe; and there can be little doubt that the Arabian breed was dispersed throughout Europe, centuries previous to the reign of James."

The diversions of the turf were well adapted to the taste of the English; and

although Charles I. paid less attention to them than his father, the passion for racing was cherished during the domestic troubles of this prince's reign, and even the wily, but industrious, Cromwell, found time to pay some attention to the improvement of the breed of running horses. Mr. Place, his master of the stud, was proprietor of the famous White Turk, as well as of several very superior brood mares, one of which was afterwards known by the name of the Coffin Mare, from the circumstance of the animal being concealed in a vault, during the search for Cromwell's effects at the time of the restoration.

Charles II. was much attached to the amusements of the race course: this monarch gave public prizes, and regularly entered horses in his own name. He also despatched his master of the horse to foreign parts, for the purpose of purchasing brood mares and stallions. James II. was also attached to the turf; and the the most favourite stallions during the reigns of the princes just mentioned, were the Helmsley Turk; Dodsworth, a barb, foaled in England; the Taffolet Barb; the Lister Turk; and the White-legged Lowther Barb.

William III. a soldier from inclination, encouraged horse racing: during his reign, the Oglethorpe Arabian and the Byerley Turk were introduced as stallions to the notice of the sporting world, as well as several other horses of minor importance.

The reign of Queen Anne, though principally occupied in the vigorous prosecution of a very bloody war, was, nevertheless, highly favourable to the successful progress of the Turf. Her consort, Prince George of Denmark, was much attached to horse racing, and kept a fine stud. During this reign, the stallions most in repute were Croft's Bay Barb, the Curwen Bay Barb, the Leeds and Woodstock Arabians, the Honeywood White Arabian, Cole's Barb, St. Victor's Barb, and, above all, the celebrated Darley Arabian.

George I. appears to have felt but little interest in the proceedings of the turf; yet in the latter part of his reign, cash was substituted for the royal plates, which system, far preferable to that which preceded it, has continued to the present day.

George II. paid but little attention to horse racing, though in the 13th year of his reign, an act was passed for the suppression of pony races, or running small and weak horses; and by this act it was

also forbidden to race for less than fifty pounds.

His Royal Highness the Duke of Cumberland, great uncle to his present majesty, was not merely an amateur of the turf, but a warm patron of horse racing, and a great breeder; indeed, it may be justly observed, that, in the last particular, he spared neither pains nor expense, and ultimately produced the best race horse the world ever saw, the celebrated Eclipse, though the Royal Duke did not live to witness his unrivalled performances.

Horse racing had never so numerous a list of supporters as at the present moment, many of whom are persons of immense wealth, as well as of eminent rank and distinction.

His late majesty spared no expense in the purchase of the best horses that appeared on the turf; and from the splendid patronage which he afforded to horse racing, it was evident that he was deeply sensible of the national benefit thence arising, not merely on account of the money thus put into circulation, but from the important circumstance of possessing a breed of horses vastly superior to what can be found in any other part of the world.

Generally speaking, however, the proceedings of the turf would seem to partake too much of business-like transactions, or a system of trade, not in regard to betting, and other collateral circumstances necessarily connected with the course, but as far as respects the horses. Racers are now exhibited for prizes, in public, at a much earlier period than formerly, and it requires no great stretch of credulity to suppose, that, in this way, many modern Eclipses have been ruined while in an incipient state. The celebrated Eclipse never contended on the race course till he was five years old, and to this circumstance may unquestionably be attributed some share of that unrivalled fame which he afterwards acquired as a racer: had he been put to those desperate exertions at two years old, which is so much in fashion at the present day, there is very great reason to believe, that it would have seriously injured, in embryo as it were, those amazing powers, the perfection of which he exhibited with such unparalleled success. The horse, it is very well known, does not attain his full growth and powers till he arrives at the age of seven; till this period, his bones have not acquired their natural

solidity, his sinews or ligaments their elastic force, his muscles that depth, expansion, and firmness, which denote the maturity of this most elegant quadruped in the almost unbounded catalogue of nature: consequently, till this consummation of the aggregate powers of the racer, we have no right to expect the perfection of his performances.

But, to speak as a tradesman on the subject, I must admit, in the first place, that the race horse is an expensive article, and therefore the sooner he is brought to work, the sooner he is likely to repay the money which has been expended upon him: such at least is the calculation. If a horse, at the early age of two years, give promise of future success, he will, of course, sell for a price accordingly. On the contrary, should his performances, at this period, be very unsatisfactory, his owner can avoid any further expense in training, and the animal may be disposed of for some other purpose. However, in a philosophical point of view, such a system is very inconclusive; nor have I the least doubt, that many good, indeed excellent, horses have been lost to the course in consequence of it. A young horse, two years old, for instance, (as I have already observed) is frequently so

overstrained by his first essay, (short as the distance may be, and the weight light,) that his powers never after regain their proper tone and vigour. And, indeed, how often has it happened, that the winner of the Doncaster St. Leger, though a three-years-old, owing to the very severe exertions he has undergone, has been able to shew the same extraordinary powers afterwards?—Moreover, if a horse be what is called *large for his years* or age, he will necessarily be weak by comparison, and therefore utterly unable to shew to any advantage in such precocious exertions as it is the present fashion to require.

If, however, the racer is, at present, introduced to the course at too early a period of his life, he is not subjected to run those unreasonable lengths or distances, nor to carry those heavy weights, which seem so much to characterise what, for the sake of distinction, may be called the old school. Twelve stone, and four-mile heats, were common occurrences formerly; a system which, like most other old systems, has been superseded by what may be called the progress of improvement, and is never likely to be revived. — From that interesting little book, *Brown's Turf Expositor*.

U

ULCER. An ulcer is a wound, which, from long standing, and injudicious treatment, is become virulent and inveterate; having acquired a callosity at the edges,

and a discoloured, foul, unhealthy slough in the middle. It must be subdued by superficial scarification, and the milder class of corrosives and caustic applications.

V

VENERY (Beasts of). The hart, hind, hare, boar and wolf.

VENOMOUS BITES. See **DISEASES OF DOGS**.

VERDERER. Is a judicial officer of the king's forests, elected (under his majesty's writ) by a majority of votes in a convened county court of the shire in which the forest is situated; and there sworn before the sheriff to keep and maintain the assizes and laws of the forest; and also to review, receive, and enrol, all the attachments and presentments, of all manner of trespasses of the forest in respect to vert and venison.

The official department of a verderer bears great similitude to that of a coroner; that, as a coroner, upon the notice of a sudden or accidental death (if attended

with circumstances to render the inquisition necessary) is to take a personal view of the body, and to make inquiry, upon the joint oaths of twelve men, how and by what means the person came by his or her death, and who and what was the occasion thereof; so it is the official duty of the verderer to look after and view the beasts of the forest; for any of those being found hurt, wounded, or slain, upon notice given to the verderer, he is to take a view of the same, and to cause a jury of twelve men to be summoned from the surrounding district, that an inquisition may be made to discover (if possible) how and by whom the said beast was hurt, wounded, or killed. The office of the verderer at the court of attachments is to sit there to see, hear, and ex-

amine, the attachments of the forest, both in vert and in venison, and to receive the same of the subordinate officers, or those who may attend to present them there, and then to enter them into their own rolls. See the article **FOREST LAWS**.

VERMIN. This term includes the fox, the badger, the martern, the polecat, the wild cat, the weasel, the stoat, &c.

VERT. This is a term in the forest laws, meant to include every plant growing within a forest or its purlieus, bearing a *green leaf*, and of sufficient magnitude to hide or cover a deer beneath its branches; but it must also be understood to signify such plants as are either trees, woods, bushes, or underwood; not, however, descending to inferior shrubs, passing under the denomination of plants, but affording no cover. By *vert* is therefore implied those trees of growth and size sufficient to be entitled conjunctively to the appellation of covert; as well underwood as great wood; and overt-vert is all sorts of high trees, as nether-vert includes every kind of underwood.

VICE. The imperfections so called in a horse, are the distinguishing traits of an innate bad temper, or habit mischievously inclined: these are very different from the little airs of skittishness, and proofs of playful spirit, which are displayed by many horses, when brought from confinement to enjoy the comforts and healthy advantages of air and exercise; or others who afford the same indications of pleasure during the ceremony of dressing in the stable, horses naturally vicious and untractable seldom keep that propensity long concealed; it generally begins to appear early, and in most cases, with colts, even before they are taken in hand to break. This tendency in some is soon obliterated by gentle treatment, and frequent attentions of tenderness; but with others it continues invincible, and occasionally shews itself during the whole period of their existence. Some are constantly disposed to kick or bite in the stable, who have no one imperfection without; on the contrary, others, who are most incorrigibly restive and unruly without, shall be incredibly calm and quiet within.

Opinions opposite to each other have always prevailed upon the treatment necessary and proper with horses of this description. That authority must be enforced, fortitude exerted, patience persevered in, and submission obtained, are all positions too firmly admitted, and acqui-

esced in, to admit of contrariety; but experience has fully demonstrated, that great points are sometimes effected by the salutary interposition of equanimity and moderation, that never could be accomplished by the frequently destructive gusts of inconsiderate passion and unmanly violence. If a horse, disposed to be restive, is addicted to running backwards, the best and only remedy is to continue backing him (if there is room for the experiment) till he becomes completely averse to his own undertaking; or procuring a person to come suddenly upon him behind, during his retrograde motion, with a complete flagellation from a cart or hunting whip, which seldom or ever fails to set such a one running from the effect of fear, and to produce a complete eradication.

Horses rearing up on end, so as to stand nearly perpendicular upon their hind legs, is the most dangerous of any description, even to the most judicious, expert, and experienced horseman; who has, in such awkward predicament, (particularly when a horse most viciously repeats it) no alternative, but to slacken his reins, and lean his body close to the neck, the better to expedite so critical a preponderation. Horses inclined to run away, from an impetuosity of temper, and an eagerness to get forward, frequently alarm their riders, if they are exceedingly irritable upon the score of timidity, or terrified upon the principle of inexperience; but sportsmen mostly prefer horses that require the curb to those who want a spur, well knowing the utility of moderately dropping the hand, and indulging the loose occasionally; as a dead pull at a hard mouthed run-away horse, is the sure means of making him endeavour to continue his career the longer.

VIPER BITE. See **DISEASES OF DOGS**.

VIVES is a disorder similar to the strangles; with this difference only, that in the strangles the tumefactions are centrally situated in the concavity of the under jaw, just below the gullet; and in the vives, the swellings are seated at the roots of the ears, descending more or less towards the neck. These differ in different subjects, as in some they do not suppurate; but by warmth, and emollient unguents, applied twice or thrice a day, are absorbed into the circulation, and are then to be taken out of the habit by a gentle course of mercurial physic; but where the swelling and inflammation are

evidently too great for repulsion and absorption, suppuration must be promoted by the means described, and the case

treated as may be found under the head STRANGLES.

VIXEN. A cub or bitch fox is so called.

W

WADDING. This article at first view appears superficial, or of trifling importance; but this is not exactly the state of the case, as a little examination will convince the reflecting sportsman, that, in using proper wadding, his diversion is not only promoted, but his personal safety rendered much more secure, particularly where a double gun is used, and single guns are seldom seen at the present day in the hands of sportsmen. Where the old wadding, *paper*, is still made use of, the charge in the second barrel of a fowling piece, is very liable to become loose from the repercussion attending the discharge of the first, especially when the barrels, from repeated firing, or other causes, have been rendered foul; and when the shot is not properly secured, the barrel is always very liable to burst. Wadding punched from common card, or from an old hat, will very well answer the purpose, but those articles are inferior to soft milboard about the thickness of three cards. If cork were so cut as to fit the calibre of the fowling-piece (it cannot be punched,) there is little doubt but it would be superior to any other kind of wadding; but in this case, the assistance of a regular cork cutter would perhaps be required. The thick soft milboard is preferable to any wadding ever used by the writer; though an old hat, if clean, forms an excellent substitute.

WALK. One of the paces of a horse. It is the slowest and least raised of all, and performed, as any one may observe, by the horse's lifting up his two legs on a side, the one after the other, beginning with the hinder leg. Thus, if he leads with the legs of the right side, then the first foot he lifts is the far hind-foot, and in the time he is setting it down, (which, in a step, is always short of the tread of his fore-foot on the same side) he lifts his far fore-foot, and sets it down before his near fore-foot. Again, just as he is setting down his far fore-foot, he lifts up his near hind-foot, and sets it down again just short of his near fore-foot; and just as he is setting it down, he lifts his near fore-foot, and sets it down beyond his far fore-foot. This is the true motion of a horse's legs in a walk.

WALL-EYES, in a horse, are those in which the iris is of a very light grey colour. These are not deemed handsome; but Gibson says, that horses which have wall eyes are generally good.

WARBLE is a small hard tumour, produced upon the side or the back of a horse, by the heat and friction of an ill-fitted saddle. It is sometimes occasioned by the pad of the saddle becoming exceedingly hard. Upon their first appearance, they never fail of submitting to a plentiful bathing of hot vinegar, followed by a gentle friction with camphorated spirits, if twice or thrice repeated; but if they are neglected in the first instance, and the same saddle (or harness) persevered in without alteration, the surface will become an eschar, and ultimately a sitfast.

WARRANTY is the assurance the purchaser of a horse receives from the seller, at the moment of terminating the bargain, if such purchase absolutely takes place, that the horse in question is no more than a certain number of years old, (as the case may be;) that he is perfectly free from every kind of vice, blemish, and defect; that he is completely sound, "wind and limb;" or, in other words, that he is in a state of perfection.

WARREN, is the name of a privileged place, by prescription or grant from the king, in which to keep beasts or fowls of warren. These in ancient records are said to be, the *hare*, the *coney*, the *pheasant*, and the partridge; but the word now principally applies to any particular district, or tract of land, set aside entirely for, and appropriated to, the breeding and preservation of rabbits as private property.

These become a most valuable and profitable stock. But to consider this subject according to its original intention, it may be remarked, that there is a distinction between a **WARREN** and **FREE WARREN** (which see.) The franchise next in degree to a park is a free warren, and appertains chiefly to the killing game within its boundaries. Those who possess a right of *free warren* over any particular manor have a property in the game, though it may be fed and killed upon land which is the property of another person, sup-

BIRDS, ETC. *Plate VIII.*



WATER-HEN, or COOTE, *p. 887.*



WOODCOCK, *p. 91.*



WEASEL & HARE, *p. 892.*

posing the said land to be situated within the limits of the manor.

WARTER was bred by Mr. G. Compton, foaled in 1794; got by King Fergus, dam by Highflyer.

Warter became celebrated from the following circumstance:—

Mr. G. Compton's	b c
Sir C. Turner's	ch c
Sir F. Standish's	br c
Mr. Wentworth's	b c
Lord H. Hamilton's	b c
Mr. T. Hutchinson's	
Mr. Sitwell's	ch c

Thursday, September 28th, 1797. One hundred pounds in specie, for three-year-olds, 7st. 5lb.; and four-year-olds, 8st. 7lb. Maiden colts allowed 2lb. Maiden fillies allowed 3lb. The winner of any subscription or sweepstakes to carry 4lb. extra. Two mile heats.

		HEATS.							
	Warter,	5	0	5	1	0	1		
	Pepper Pot,	3	0	1	5	0	2		
	Stamford,	1	3	6	2	<i>dr</i>			
	Cardinal,	2	5	2	3				
by	Trumpator,	7	4	4	4				
	Hipswell,	6	6	3	<i>dr</i>				
	Commodore,	4	<i>dr</i>						

WARTS are spongy excrescences, sometimes appearing upon different parts of the body, and in great numbers. Moistening their surface once in three days, with butter of antimony, will effect certain ob-

literation, without the least inconvenience, even upon the eye-lids, which are of equal or superior irritability with any other part of the body.

WATER-HEN AND THE COOT. Before we enter upon water fowls, properly so called, two or three birds claim our attention, which seem to form the shade between the web-footed tribe and those of the crane kind. These partake rather of the form than the habits of the crane; and, though furnished with long legs and necks, rather swim than wade. They cannot properly be called web-footed; nor yet are they entirely destitute of membranes, which fringe their toes on each side, and adapt them for swimming. The birds in question are the water-hen and the bald coot.

These birds have too near an affinity not to be ranked in the same description. They are shaped entirely alike, their legs are long, and their thighs partly bare; their necks are proportionable, their wings short, their bills short and weak, their colour black, their foreheads bald and without feathers, and their habits entirely the same. These, however, naturalists have thought proper to range in different classes, from very slight distinctions in their figure. The water-hen weighs but fifteen ounces, the coot twenty-four. The bald part of the forehead in the coot is white; in the water-hen it is of a beautiful pink colour. The toes of the water-hen are edged with a straight membrane; those of the coot have it scolloped and broader.

The differences in the figure are but slight, and those in their manner of living still less. The history of the one will serve for both. As birds of the crane kind are furnished with long wings, and easily change place, the water-hen, whose wings are short, is obliged to reside entirely near those places where her food lies: she cannot take those long journies that most of the crane kind are seen to perform; compelled by her natural imperfections, as well perhaps as by inclination, she never leaves the side of the pond or the river in which she seeks for provision. Where the stream is selvaged with sedges, or the pond edged with shrubby trees, the water-hen is generally a resident there: she seeks her food along the grassy banks, and often along the surface of the water. With Shakspeare's

W A T E R - R A I L

Edgar, she drinks the green mantle of the standing pool; or, at least, seems to prefer those places where it is seen. Whether she makes pond-weed her food, or hunts among it for water insects, which are found there in great abundance, is not certain. I have seen them when pond-weed was taken out of their stomachs. She builds her nest upon low trees and shrubs, of sticks and fibres, by the water side. Her eggs are sharp at one end, white, with a tincture of green, spotted with red. She lays twice or thrice in a summer; her young ones swim the moment they leave the egg, pursue their parent, and imitate all her manners. She rears in this manner two or three broods in the season; and when the young are grown up, she drives them off to shift for themselves.

As the coot is a larger bird, it is always seen in larger streams, and more remote from mankind. The water-hen seems to prefer inhabited situations: she keeps near ponds, moats, and pools of water near gentlemen's houses; but the coot keeps in rivers and among rushy-margined lakes. It there forms a nest of such weeds as the stream supplies, and lays them among the reeds, floating on the surface, and rising and falling with the water. The reeds among which it is built keep it fast, so that it is seldom washed into the middle of the stream. But if this happens, which is sometimes the case, the bird sits in her nest, like a mariner in his boat, and steers with her legs her cargo into the nearest harbour: there, having attained her port, she continues to sit in great tranquillity, regardless of the impetuosity of the current: and though the water penetrates her nest, she hatches her eggs in that wet condition.

The water-hen never wanders: but the coot sometimes swims down the current till it even reaches the sea. In this voyage these birds encounter a thousand dangers: as they cannot fly far, they are hunted by dogs and men; as they never leave the stream, they are attacked and destroyed by otters; they are preyed upon by kites and falcons; and they are taken in still greater numbers in weirs made for catching fish; for these birds are led into the nets while pursuing small fish and insects, which are their principal food. Thus animated nature affords a picture of universal invasion! Man destroys the otter, the otter destroys the coot, the coot feeds upon fish, and fish are universally the tyrants of each other!

WATER-RAIL, although a shy and solitary bird, is sufficiently common in this kingdom, but it is only seen during the winter in the northern parts. It is found chiefly on the edges of ponds and rivulets, much overgrown with sedges, reeds, and other coarse herbage, among which it may find shelter on the appearance of an enemy, and also feed in secret security: it runs, occasionally flirting up its tail, through its tracks with similar swiftness to what the land-rail exerts in the meadows and corn-fields; and also shows an equal aversion to take flight as that bird does; and possesses more means of disappointing the sportsman, whose patience it generally exhausts, and distracts his dog, seldom rising until after it has crossed every pool, and skulked through every avenue, within the circle of its retreats; when once flushed, it is, however, easily shot, flying very indiffer-

ently, and with its legs hanging down : it will, at times, take to the water, swimming tolerably well, and is often seen running on the surface, where there are any weeds to bear it up.

The eggs of the water-rail, according to Latham, are more than an inch and a half long, of a pale yellowish colour, marked all over with dusky brown spots, nearly equal in size, but irregular. The flesh is of a delicious flavour.

The length of the water-rail is twelve inches, breadth fourteen, and weight three ounces and a half ; the bill is slightly curved, one inch and three quarters long, of a dusky black colour, but reddish at the base ; irides red ; the top of the head, hinder parts of the neck, back, scapulars, coverts of the wings, and tail, are black edged with dingy brown ; the under parts, from the chin to the middle of the belly, ash colour ; in some, supposed to be young birds, margined with white ; the side feathers are beautifully crossed with black and white, and slightly tipped with reddish brown ; the inner side of the thighs, the belly, and the vent, are pale brown, sometimes specked with blueish ash-colour ; under tail coverts white ; quills dusky ; the tail consists of twelve short black feathers, edged and tipped with dusky red ; some of those on the under side barred with black and white. The legs, which are placed far behind, dusky red ; the toes long, and without any membrane to connect them.

The water-rail is found in Lancashire, and the northern parts of England, and is plentiful in the marshes of Sweden, Norway, Russia, and in the western part of Siberia, and throughout the continent of Europe ; from whence, during the severity of winter, it migrates southward, even into Africa. Buffon says, they pass Malta in the spring and autumn ; and in confirmation adds, that "the Viscount de Querheint saw a flight of them at the distance of fifty leagues from the coasts of Portugal, on the 17th of April, some of which were so fatigued that they suffered themselves to be caught by the hand."

WATER SPANIEL. The dog which passes under the denomination of the water spaniel is not so common as formerly. He is generally of the middle size, with a rough curly coat, and in fact too well known to need a particular description. In wild-fowl shooting, they are useful in fetching the killed or wounded bird out of the water ; and it is in matters of this sort that they are principally employed.

WATERING. In the language of the stable, the supplying horses with water at stated times. The properties of water as a suitable diluent of solid food are well known : but it is a matter of some consequence to be certain that the water given to animals is pure and uncontaminated with unwholesome particles, either in a state of simple mixture or of chemical union.

That water may hold in solution many deleterious ingredients has been shewn and the subject has been thought of so much im-

portance by Mr. Clark of Edinburgh, as to induce him to treat of it in a separate chapter, in which he not only considers the diseases that horses are liable to from the constant use of unwholesome water, but also makes some judicious remarks on the management of horses, with regard to the hazardous practice of indulging them in drinking it cold, at improper times, or to a dangerous excess.

Water, says he, is the main diluter of the food and fluids in general. It likewise

becomes the vehicle of all nourishment to the animal. On that account, we cannot be too curious about its qualities, nor delicate in our choice of it for our horses, as it partakes of the qualities of those bodies which it passes through. Whether they are metallic, saline, or earthy, &c. these foreign matters mix with the animal fluids, according to their different gravity, and the capacity of the canals through which they circulate, and will, by the laws of motion, be deposited on one part or other.

As the proportion of water which enters into the composition of animal fluids is considerable, so likewise is the proportion of fluids secreted. A large quantity of water diffused through the whole mass of fluids in the body, adds to its fluidity. Hence it will be obvious that constant and frequent supplies of water are not only necessary to dilute the food in the stomach, but the mass of fluids in general; as they, even in the most healthy state, have a constant tendency to putrefaction, and require constant supplies both of food and drink to keep them in a healthy condition.

Those who have searched into the causes of disease in the human body, allege that some of the most obstinate of the chronic kind proceed, in a great measure, from the use of unwholesome water; and, by comparing the different strata of earth through which water passes about populous cities, they affirm, that, where the water is bad, those diseases prevail most. It is likewise thought that the disposition to gravel in the urine may be owing to the same cause. In like manner, water which contains mineral bodies, and metallic salts, is thought to enlarge the glands of the throat and jaws; and hence it is said, that the inhabitants about the Alps, &c. where the waters abound much with these qualities, are much disposed to glandular obstructions, and other serious maladies. These circumstances seem to warrant the conclusion, that those waters are not digestible, or that they do not assimilate or mix intimately with the fluids; and hence prove the source of calculous concretions, and of hard swellings, in different parts of the body.

The effects of unwholesome water upon the human body being thus evident, if the diseases of animals, particularly those of horses, were as thoroughly investigated, it is more than probable that they would be found equally hurtful to brute animals; for it is certain that they are subject to

diseases which, in many respects, resemble those of the human body. We likewise find, upon dissecting their bodies, that they are subject to calculous concretions, and hard tumours, in different organs, and which may originate from the source we suspect.

Here our author adduces some proofs of the existence of urinary calculi in horses and quotes the opinion of Bracken, who, in his second volume of "Farriery Improved," when treating of the gravel, says, "But the greatest cause of it (in my thoughts) is owing to their drinking such waters as, by running through the various strata of earth, are impregnated with stony particles. In short, whatever can bring on an accumulation of earthy, or rather tartareous, matter, in the urinary passages, whether by obstructing or lessening the capacity of the canals, or by immediately or remotely producing the substance itself, will cause gravel, and in time the stone."

"It has frequently been observed," continues Mr. Clarke, "that horses do not thrive on changing from one part of the country to another, although their treatment, in every respect, be the same, the difference of water excepted. This perhaps, may, in a great measure, be owing to the quality of the water they drink, and which may be possessed of different qualities from that to which they had before been accustomed. This is particularly observed in those places where the stable yards are supplied from pit-wells, some of which are very deep, and the water very hard, which occasions that chilliness, trembling, and shaking, which frequently is observed in horses when they drink it immediately after it is new pumped, and which causes their coats to stare, and stand on end, for a considerable time, and sometimes they are griped, and seem greatly out of order.

Spring-water is liable to partake of all the metalline or mineral strata through which it passeth. Hence it becomes noxious or salutary, according to the nature of those substances with which it has been in contact.

River-water has likewise its different qualities from the various soils through which it travels; but, in general, it is much softer than water that runs under ground, and therefore much fitter for use.

Well or pit-water is subject to all the inconveniences of spring-water, with this additional circumstance, that it is gener-

ally hard, and, by stagnating long in the well, it may there take up from the bed it lies upon such particles as may render it more unwholesome; therefore the goodness of all well or pit-water is to be doubted, and particularly that which is taken from very deep wells.

Pond-water (under which head may be included all stagnant waters, which generally proceed from rain), if lying on a clean or clayey bottom, and fresh, answers very well for cattle of all kinds; but, in warm weather, it is apt to corrupt and ferment, which renders it unwholesome, and the most uncleanly and disagreeable of any."

Mr. Clarke is inclined to prefer, upon the whole, those waters "that are lightest, and most readily break soap," as these easily digest and assimilate with the fluids of the animal.

"To correct the hardness of pit-water, and render it more salutary for horses to drink," he says, "it should be pumped into a large trough, and exposed to the open air for some time before it is used; or, if a cart-load or two of clay or chalk were thrown into the well, it would greatly improve the water. It has likewise been found, that breaking down a piece of clay, about the size of an apple, in a pailful of hard water, before it is given to horses for drink, morning and evening, has produced a considerable favourable change on the coats of horses. Indeed it will be found, that, where horses are obliged to drink hard water, they are, for the most part, rough-haired, and at the same time, they will have a great deal of dusty matter at the roots of it, even although they should be well curried and frequently brushed; which plainly shows that there is some obstruction of the pores of the skin, which prevents the natural perspiration, and, of course, that shining appearance of the hair, which is observed in all horses that perspire freely. Hence it would appear that this cutaneous obstruction proceeds from the constant drinking of water of a bad quality.

Water that is transmitted through limestone, although exposed to the open air in large ponds, will retain its hardness, and produce all the effects above mentioned on horses that drink it constantly. This was observed at a nobleman's seat near Edinburgh. On mentioning the above circumstance, accidentally, to a great breeder of cattle, from the north of England, he advised the throwing some cart-loads of clay into the pond, which produced a consider-

able change on the water for the better.

When pit-water is rendered impure, from stagnating too long, without being drawn off by pumping, or when it has acquired any bad smell, by filth getting into it, or full of animalcula or small earth-worms, throwing into the well a few shovels-full of burnt lime will render it sweet and fit for use.

Horses have a delicate taste and smell, and are very nice in the choice both of what they eat and what they drink; of course, they shun, when it is in their power, every thing that is disagreeable to their senses. But when they are long restricted from drinking water, they will, in that case, offend their taste to assuage their thirst. This is evident from their readily drinking water strongly impregnated with nitre, or with quick-lime, in certain cases, when these are given as medicine. But this restriction ought never to be laid on horses, more especially when they are labouring under any inflammatory diseases; as, in such cases, they cannot drink too much, in order to dilute their blood and promote their natural secretions. But it too frequently happens, through mismanagement, that they are forced, from necessity, to drink water which they loath, and that, of course very sparingly; when, at the same time, if given them in a proper manner, and of a proper temperature, it might prove in many cases, the best medicine they could have.

Horses should never be suffered to drink too much cold water at one time. If they are disposed to this, it shows that they have been neglected in this respect; for, if they had always water at command, they would drink often, but never too much at once. For this reason, water should be offered them frequently, but not in too great a quantity. Neither should they be allowed to drink much water when they are going to perform any active exercises, as has been noticed in another place. See MANAGEMENT.

It is, however, very refreshing to horses to allow them to wash their mouths and throat by a glut or two of water, after performing any severe exercise; but they ought on no account to be indulged in drinking a quantity of cold water when they are overheated. This should be particularly guarded against, as the consequences are dangerous, and frequently prove fatal to them; for, when a quantity of cold water is taken into the stomach in this heated state, when its vessels are full,

and distended with blood, a stagnation of the blood in these vessels takes place, a mortification follows, and death ensues; therefore, when a horse has been overheated, from exercise, &c. small quantities of water should be given him at a time in a pail, but not till he appears to be thoroughly cooled. In very cold weather, indeed, the chill should be taken off, by mixing the water with some which has been heated. In these cases, it is likewise of service to add to it some oatmeal or bran."

The too common practice of riding horses hard after they have drank water, in order (as the phrase is) to warm it in their bellies, Mr. Clark, very properly, condemns; but walking or trotting gently, he thinks, may be of use. In travelling, towards the end of the stage, if a horse is not too warm, it is very proper, if an opportunity offers, to give him a little water, but by no means to suffer him to drink so great a quantity as to endanger internal inflammation.

To the cautions of the judicious writer from whom we have quoted, we are inclined to recommend that of avoiding the use of water that has stood long in a leaden cistern. It is well known that horses are extremely subject to choleric; and as water is very liable to unwholesome impregnation from lead, the latter may be, and no doubt frequently is, the actual, though unsuspected, cause of that malady.

WAXY was a horse of considerable reputation upon the turf, and whose performances rendered him a stallion of high estimation. He was bred by Sir F. Poole; foaled in 1790; got by Pot8o's out of Maria, a daughter of Herod. In 1793, when three years old, he won the Derby Stakes (at Epsom) of 50gs. each, half forfeit, (50 subscribers,) beating twelve; the remainder paying forfeit. The odds

twelve to one against him at starting. At Lewes he won a sweepstakes of 10gs. each, (9 subscribers,) carrying 7lb. extra. At Abingdon he won a sweepstakes of 10gs. each, 5 subscribers. In 1794, he won the Jockey Club plate at Newmarket; the King's 100gs. at Ipswich; a 50l. plate, and 60gs. at Lewes. In 1795, the King's plate at Salisbury. In 1796, the King's plate at Guildford; a subscription of 10gs. each, (13 subscribers,) at Lewes; and the King's plate at Salisbury. In 1797, he broke down in running for the gold cup at Oxford. The following season he was announced as a stallion, at 10 guineas a mare, and half a guinea the groom, at Lewes, in Sussex.

WEANING is the act of separating a colt or filly from its dam; and must always become dependent upon circumstances, in respect to the kind of country in which the colt is produced, as well as the purpose for which he is bred, and the late or early part of the season in which he was foaled. A foal produced at the latter end of April, or the beginning of May, will better bear weaning in the early part of October, than a foal dropped in June will in two months after. Where the foal, from having fallen late in the year, or any other cause, is observed to be weak in body and constitution, or stinted in growth, great advantage may be obtained by letting him run in an unrestrained state with the dam during the remainder of the winter.

At whatever time weaning may be determined on, the transition from one food to another so exceedingly opposite, should not be too suddenly made; the salutary interposition of mashes, made from ground malt and bran, and thin in consistence, will prove a pleasing and consolatory assistance for the loss the foal has sustained.

WEASEL.—The hare has no enemy more fatal than the weasel, which will follow and terrify it into a state of absolute imbecility, when it gives itself up without resistance, at the same time making piteous outcries. The weasel seizes its prey near the head; the bite is mortal, although the wound is so small, that the entrance of the teeth is scarcely perceptible; a hare or rabbit bit in this manner is never known to recover, but lingers for some time and dies.

The common weasel is the least animal of this species; the disproportionate length and height of the little animals which compose this class are their principal characteristic, and are alone sufficient to distinguish them from all other carnivorous quadrupeds. The length of the wolf in proportion to its height is as one and a half to one;

W E A S E L

that of the weasel is nearly as four to one. The weasel never exceeds seven inches in length, from the nose to the tail, which is only two inches and a half long; it ends in a point, and adds considerably to the apparent length of the body. The height of the weasel is not above two inches and a half, so that it is almost three times as long as it is high. The most prevailing colour is a pale tawny brown, resembling cinnamon on the back, sides, and legs; the throat and belly white; beneath the corners of the mouth, on each jaw, is a spot of brown; the eyes are small, round and black; the ears broad and large, and, from a fold at the lower part have the appearance of being double: it has whiskers like a cat, but has two more teeth than any of the cat kind, having thirty-two in number, and these well adapted for tearing and chewing its food. The motion of the weasel consists of unequal bounds or leaps, and in climbing a tree it gains a considerable height by a single spring from the ground: in the same precipitate manner it jumps upon its prey, and, as it possesses great flexibility of body, it easily evades the attempts of much stronger animals to seize it. We are told that an eagle, having pounced upon a weasel, mounted into the air with it, and was soon after observed to be in great distress; the little animal had extricated itself so much from the eagle's hold, as to be able to fasten upon the throat, which presently brought the eagle to the ground, and gave the weasel an opportunity of escaping. This however is somewhat unlikely, as the distance from the eagle's claws to its throat, when flying, would be farther than the largest weasel could reach.

The activity of the weasel is remarkable; it will run up the sides of a wall with such facility that no place is secure from it. The weasel always preys in silence, and never utters any cry, except when it is struck, when it expresses resentment or pain by a rough kind of squeaking. It is useful to the farmer in winter by clearing his barns and granaries of rats and mice; more slender and more nimble than the cat, it presents a more deadly foe, as it can pursue the former into its hole, where their destruction is certain to follow. Into the pigeon house, it is sometimes a most unwelcome intruder, as it spares neither eggs nor young ones. In summer it ventures to a distance from its usual haunts; is frequently found by the side of water near corn mills, and frequently follows wherever a swarm of rats occupy any place.

The female brings forth in the spring and takes great pains for the comfort of her young, by preparing a bed for them of moss or some warm soft material. They have from three to five at a litter, which are born blind, but they soon acquire both sight and strength to follow their dam in her excursions.

This animal sleeps in its hole during the greater part of the day, and the evening is the chief time when it commences its depredations; it then may be seen stealing from its retreat and creeping about in search of prey, which extends to all eggs it can meet with, and it not unfrequently destroys the bird that endeavours to defend them. If it enters the hen roost, the chickens are sure to fall victims; it does not often attack the cocks or old hens, nor does it devour what it kills

on the spot, but drags it off to eat at leisure. The weasel's appetite for animal food is insatiable and never forsakes it; though as soon as it has killed any animal, it sucks the blood, and does not attempt to touch the flesh till compelled by hunger.

The odour of the weasel is very strong, and is the most offensive in summer time, or when irritated or pursued.

Notwithstanding the report of its being so wild when kept in a cage, as to be in a continual state of agitation, and so shy of any person approaching to look at it, as to hide itself in the wool or hay given it for its bed, and of its constantly refusing to eat in the presence of any one, Buffon gives two instances of its being tamed. The one was of a lady, who tried the experiment upon a young weasel taken in her garden, which soon learned to recognise and lick the hand from which it received its food, and became as familiar and frolicsome as a dog or a squirrel. In the other case, a gentleman succeeded so completely in training a young weasel, that it followed him wherever he went, and would distinguish his voice, and spring over other persons to get to him.

The habits and manners of the weasel are as nearly as possible similar to those of the stoat already described.

WEN. A fleshy substance, that, in different instances, has been known to grow out almost on all parts of a horse's body. The cause from which they proceed is difficult to assign. They begin usually in the skin, where the vessels are extremely small; and these, enlarging gradually, in time grow to a considerable size.

Wens are seldom painful, owing to their small beginning and slow growth; being sometimes of several years standing before they arrive to any great size. They become at last like the natural flesh, and rarely are attended with any other bad consequence than the deformity, or weight, upon the parts where they are situated. Their substance is generally fleshy, and for the most part spongy; though some are spongy in part, with a mixture of schirrous hardness, of a scrophulous or cancerous disposition, especially when they arise among the glandular parts.

When a wen takes its origin from a tendon, or is attached to the fascia connected with the muscles, or when any part of a wen is involved with their fibres, the part generally appears, upon dissection, like so many threads laid close together; and this, according to some, is of the nature of a true schirrus. When a wen has a communication with the *membrana adiposa*, its substance is then chiefly an accumulation of a greasy matter resembling suet; and in some cases a consider-

able quantity of clear water has been found.

If it be deemed necessary to remove wens, the assistance of a skilful veterinarian is necessary.

WHIPPER-IN. The whipper-in is of much more importance than he is generally considered by those who do not study hunting, particularly to a pack of fox hounds; with harriers, the duty of the whipper-in is a minor consideration, and consists in little more than getting on the tailing or sluggish hounds. Beckford says, (and says truly) that no pack of fox hounds is complete without two whippers-in; the first is to be considered as the second huntsman, and should possess nearly the same good qualities. It is necessary besides that he should be attractive and obedient to the huntsman; and, as his horse will probably have most to do, the lighter he is the better; but if he is a good horseman it will sufficiently overbalance such an objection. He should not be conceited. "I had formerly one (says Beckford) who instead of stopping hounds as he ought, would try to kill a fox by himself. This fault is unpardonable: he should always maintain to the huntsman's halloo, and stop such hounds as divide from it—when stopped, he should get forward with them to the huntsman."

The first whipper-in must be contented to act an under part, except when circumstances require that he should act other-

wise. "I prefer (says the author from whom we have already quoted) an excellent whipper-in to an excellent huntsman. The opinion, I believe, is new; I must therefore endeavour to explain it.—My meaning is this, that I think I should have better sport and kill more foxes with a moderate huntsman and an excellent whipper-in, than with the best of huntsmen without such an assistant. My reasons are, that good hounds (and I would not keep bad ones) stand oftener in need of the one than the other; and genius, which, in a whipper-in, if attended by obedience, his first requisite, can do no harm; in a huntsman, is a dangerous, though desirable quality; and, if not accompanied with a large share of prudence, and I may say humility, will often spoil your sport and hurt your hounds. A gentleman told me he heard the famous William Dean, when his hounds were running hard in a line with Daventry, from whence they were at that time many miles distant, swear exceedingly at the whipper-in, saying, *'What business have you here?'* The man was amazed at the question. *'Why, don't you know (said he) and be d—d to you, that the great earth at Daventry is open?'* The man got forward, and reached the earth just time enough to see the fox go in. If therefore, whippers-in are at liberty to act as they shall think right, they are much less confined than the huntsman himself, who must follow his hounds; and consequently they have greater scope to exert their genius, if they have any."

The whipper-in should always be on the opposite side of the cover from the huntsman: if within hearing of his halloo, it is near enough; for that is the hunting signal he is to obey. The station of the second whipper-in may be near the huntsman, for which reason any boy that can halloo, smack a whip, and ride well may answer the purpose.

The first whipper-in should be able to hunt the hounds occasionally, and his being able to do so, will answer another good purpose—it will make the huntsman more attentive.

When the hounds leave the kennel, the first whipper-in should precede them; the second whipper-in should be some little distance behind them. "Such (says Beekford) should be the arrangement; if not, I fear, the hounds will not be suffered to empty themselves, let their wants be ever so great; for as soon as a boy is made a whipper-in, he fancies he is to whip the

hounds whenever he can get at them, whether they deserve it or not."

When a fox goes away, the first whipper-in should set off with the huntsman; but the second whipper-in should not leave the cover while a single hound remains in it; nothing can be worse than suffering hounds to remain behind; whilst keeping them well together is one of the surest means to render them steady.

The first whipper-in, if he possesses genius, will have frequent opportunities of exercising it: he may get forward to any great earth that by chance may be open; he may suck the wind to halloo or mob a fox when the scent fails; he may keep him off his foil; he may stop the tail hounds and get them forward; and has it frequently in his power to assist the hounds, without doing them any hurt, provided he has sense enough to distinguish where he is wanted most. Besides, the most essential part of fox hunting, the making and keeping the pack steady, depends entirely upon him; as a huntsman should seldom rate, and never flog, a hound. In fact, the first whipper-in may be justly considered as a second huntsman; and to be perfect, he should be as capable of hunting the hounds as the huntsman himself.

A whipper-in should always get to the head of the hounds before he attempts to stop them. The rating behind is to little purpose; and, if they are in cover, may prevent him from knowing which are the culprits. When hounds are running a fox, the first whipper-in should content himself with stopping such as are riotous, and should get them forward. They may be condemned upon the spot, but the punishment should be deferred till the next day, when they may be taken out for the purpose of committing the fault, and suffer the punishment accordingly.

A whipper-in, while breaking in young hounds, will sometimes rate them before they commit the fault: this prevents them for that time; but they will be just as ready to begin the next opportunity. He had much better let them quite alone, till he sees what they would be at; and the discipline may then be proportioned to the degree of offence. Whether a riotous young hound runs little or much is of small consequence, if he be not encouraged: it is the blood only that signifies, which in every kind of riot should carefully be prevented.

Whippers-in, when they rate a hound (we are still speaking of breaking-in

hounds,) if he does not pay attention, they should not keep rating on, but take up the delinquent immediately, and administer the whip very freely. A hound should always be well aware for what he is flogged; a hound should never be struck that does not deserve it; but those hounds that deserve punishment, should, generally speaking, receive it severely.

Whippers-in are apt to rate hounds and then endeavour to flog them. A dog, after being rated, will naturally avoid the whip. The whipper should strike first, and rate afterwards.

The second whipper-in should be very careful to bring home all the hounds. Beckford observes, "I lost an old hound for ten days, and sent all the country over to inquire after him; and, at last, when I thought no more about him, in drawing a large cover in the country where he had been lost, he joined the pack; he was exceedingly emaciated, and it was a long time before he was recovered."

The getting forward the tail hounds is a necessary part of fox hunting, in which a whipper-in is of the greatest service. He should get forward at times, when the huntsman is not with the hounds; but the

second whipper-in (who frequently is a young lad, ignorant of his business) on no account ought to encourage or rate a hound, but when he is quite certain it is right to do it; nor is he ever to get forward so long as a single hound remains behind.

As an interesting corollary to the present article, we shall introduce a sketch of the closing scene of Thomas Moody, for thirty years whipper-in to Mr. Forrester's hounds, in Shropshire. He was a striking instance of the ruling passion strong in death. By his own desire, he was carried to the grave by a number of earth-stoppers, and attended by many sporting friends; directly after the corpse, his favourite horse (named by himself *Old Soul*) followed, carrying his last fox's brush in the front of his bridle; his cap, whip, boots, spurs, and girdle being laid across the saddle; and after the burial service was read, there were, by his own desire, three rattling view halloos given over the grave.

This circumstance produced the following spirited composition from the pen of W. Pearce, Esq. it was set to music by Shield, and frequently sung with uncommon effect by Incledon:—

You all know Tom Moody, the whipper-in, well:
The bell just done tolling was honest Tom's knell:
A more able sportsman ne'er followed a hound
Through a country, well known to him fifty miles round:
No hound ever *challeng'd* so deep in the wood,
But Tom well knew the sound, and could tell if 'twas *good*:—
And all with attention would eagerly mark,
When he cheer'd up the pack with—Hark! Rattler! hark! hark!
High!—Wind him! and cross him!
Now, Rattler, boy! Hark!

Six crafty earth-stoppers, in hunter's green drest,
Supported poor Tom to "an *earth*" made for rest:
His horse, which he styl'd his "*Old Soul*," next appear'd,
On whose forehead the *brush* of his last fox was rear'd;
Whip, cap, boots, and spurs, in a trophy were bound;
And here and there followed an old straggling hound.
Ah! no more at his halloo yon vales will they trace!
Nor the Wrekin* resound his first *scream* in the chase!
With "High over! Now press him!
Tally ho! Tally ho!"

Tom thus spoke to his friends, ere he gave up his breath—
"Since I see you're resolv'd to be *in at the death*,
One favour bestow—'tis the last I shall crave—
Give a rattling *view halloo*, thrice, over my grave;
And unless at that warning I lift up my head,
My boys! you may fairly conclude I am dead!"

* A large and well known mountain in Shropshire.

Honest Tom was obey'd, and the shout rent the sky,
 For ev'ry voice join'd in th' enlivening cry—
 "Tally ho! Hark forward!
 Tally ho! Tally ho!"

WHOO-WHOOP. See the article HALLOO.

WIGEON. The wigeon is in length, twenty inches, and weight, twenty-four ounces; bill, narrow, of a blueish lead colour, an inch and a half long, tip, black; the top of the head is cream colour, over the bill, almost white; head and neck, light bay; the plumage of the back, and sides under the wings, undulated with black and white lines; wing coverts, brown, more or less mixed with, and in some birds almost, white; the greater quill feathers, dusky; the outermost webs of the middle feathers, of a fine green; the tips, black, the last striped with black and white; the two middle feathers of the tail are longer than the others, black and sharp pointed, the rest ash coloured; the belly, white; vent feathers, black; legs, dusky lead colour.

The head of the female is of a rusty brown, spotted with black; the back is of a deep brown, edged with a paler; the tips of the lesser quill feathers, white; the belly, white.

This species is common on most parts of the old continent; it is caught as low as Egypt, from the middle to the end of November, by nets in the marshes before the departure of the waters; it is also found at Aleppo, during the winter, in plenty; observed, likewise, in the Caspian sea and its neighbourhood; and in most parts of Europe, as far as Sweden. It abounds in England during the winter months, and is caught in the decoys; it is said not to breed in France, nor is it certain that they breed in this country. Both sexes are alike until the following spring after hatching, (this obtains in the pintail, the gadwall, and the shoveller, who are all grey and have no beautiful feathers when young,) when the males about March gain their full plumage, but lose it again at the end of July, and with it, in some measure, their voice, which they regain, and always use during their flight, in the winter season, and which is thought to be like the sound of a fife. Their flesh is much esteemed, and they are easily domesticated in places where there is much water, and are greatly admired for their beauty, sprightly look, and active frolicsome motions.

WILD FOWL. Under this head may be classed all those birds which frequent the rivers, marshes, fenny places, and the sea shore, and which have been noticed under distinct heads.

Some of them do not exactly come under the description of game, at least in the eye of the law; but they are all objects of interest to the sportsman, particularly to those sportsmen who reside near the sea, or in the vicinity of large rivers, fens, or marshes.

The progressions of nature from one class of beings to another, are always by slow and almost imperceptible degrees. She has

peopled the woods and the fields with a variety of the most beautiful birds; and, to leave no part of her extensive territories untenanted, she has stocked the waters with its feathered inhabitants also: she has taken the same care in providing for the wants of her animals in this element, as she has done with respect to those of the other; she has used as much precaution to render water-fowl fit for swimming, as she did in forming land-fowl for flight; she has defended their feathers with a natural oil, and united their toes by a webbed membrane; by which contrivances they have at once se-

curity and motion. But between the classes of land-birds that shun the water, and water-fowl that are made for swimming and living on it, she has formed a very numerous tribe of birds, that seem to partake of a middle nature ; that, with divided toes, seemingly fitted to live on land are at the same time furnished with appetites that chiefly attach them to the waters. These can properly be called neither land-birds nor water-fowl, as they chiefly derive their sustenance from watery places, and yet are unqualified to seek it in those depths where it is often found in the greatest plenty.

This class of birds, of the crane kind, are to be distinguished from others rather by their appetites than their conformation. Yet even in this respect they seem to be sufficiently discriminated by nature : as they are to live among the waters, yet are incapable of swimming in them, most of them have long legs, fitted for wading in shallow waters, or long bills proper for groping in them.

Every bird of this kind, habituated to marshy places, may be known, if not by the length of its legs, at least by the scaly surface of them. Those who have observed the legs of a snipe or a woodcock, will easily perceive my meaning ; and how different the surface of the skin that covers them is from that of the pigeon or the partridge. Most birds of this kind also, are bare of feathers half way up their thighs ; at least, in all of them, above the knee.—Their long habits of wading in the waters, and having their legs continually in moisture, prevents the growth of feathers on those parts ; so that there is a surprising difference between the leg of a crane, naked of feathers almost up to the body, and the falcon, booted almost to the very toes.

The bill is also very distinguishable in most of this class. It is, in general, longer than that of other birds, and in some finely fluted on every side ; while at the point it is possessed of extreme sensibility, and furnished with nerves, for the better feeling their food at the bottom of marshes, where it cannot be seen. Some birds of this class are thus fitted with every convenience : they have long legs, for wading ; long necks, for stooping ; long bills, for searching ; and nervous points, for feeling. Others are not so amply provided for ; as some have long bills, but legs of no great length ; and others have long necks, but very short legs. It is a rule which universally holds, that where

the bird's legs are long, the neck is also long in proportion. It would indeed be an incurable defect in the bird's conformation, to be lifted upon stilts above its food, without being furnished with an instrument to reach it.

If we consider the natural power of this class, in a comparative view, they will seem rather inferior to those of every other tribe. Their nests are more simple than those of the sparrow ; and their methods of obtaining food less ingenious than those of the falcon ; the pie exceeds them in cunning ; and though they have all the voraciousness of the poultry tribe, they want their fecundity. None of this kind, therefore, have been taken into man's society, or under his protection ; they are neither caged like the nightingale, nor kept tame like the turkey, but lead a life of precarious liberty in fens and marshes, at the edges of lakes and along the seashore. They all live upon fish or insects, one or two only excepted.

All this class, therefore, that are fed upon insects, their food being easily digestible, are good to be eaten ; while those which live entirely upon fish, abounding in oil, acquire in their flesh the rancidity of their diet, and are, in general, unfit for our tables. To savages, indeed, and sailors on a long voyage, every thing that has life would appear good to be eaten ; and we often find them recommending those animals as dainties, which they themselves would spurn at after a course of good living. Nothing is more common in their journals than such accounts as these—"this day we shot a fox—pretty good eating ; this day we shot a heron—pretty good eating ;" and, "this day we killed a turtle"—which they rank with the heron and the fox, as "pretty good eating." Their accounts, therefore, of the flesh of these birds, are not to be depended upon ; and when they cry up the heron or the stork of other countries as luxurious food, we must always attend to the state of their appetites who give the character.

WILD FOWL SHOOTING. This amusement is never likely to be held in general estimation ; yet in the severity of a hard winter, it will afford diversion of a secondary order, or enliven a dull season, when superior field sports are not to be obtained ; when, in fact, from the state of the weather, the chase of the hare and the fox is out of the question ; and when, indeed, the pursuit of the partridge, &c. may be considered, at least, as very un-

advisable, and frequently abortive—in indeed, in a hard frost, pointers cannot range, the state of the ground being such as very soon to cut their feet to pieces. In such cases, cock shooting may be followed as well as snipe shooting; and to these may be added wild-fowl shooting in general.

Wild-fowl shooting, we are perfectly aware, is pursued throughout the winter; but unless the frost be sufficiently severe so as to enable the sportsman to walk upon the ice over the marshes, it appears, at least to us, but a shivering sort of business. When a well frequented marsh becomes completely frozen up, the birds which haunt such places, from want of food, become less shy, and the calls of hunger keep them constantly on the move throughout the day, which is not the case at other times, as they seldom fly, in open weather, except early in the morning and as the dusk approaches in the evening.

In severe frosts, therefore, the sportsman is not under the necessity of hiding himself behind some reeds or other screen and waiting till the birds pass, but can keep his blood in tolerable circulation by walking about, and if the frost has been of any continuance, he will be very likely to obtain good sport; for, as all wild-fowl are very shy in general, it is only on occasions like these, when they are suffering from hunger, that they will permit the approach of the sportsman.

In severe frosts, the sportsman will do well to walk by the side of running streams and brooks, in the vicinity of the marsh, and those in particular which are sheltered by trees, hedges, or other cover; as wild ducks, and birds of the duck kind, will be very frequently found in them.

And here it may not be amiss to say a few words upon the erroneous notion which has so long prevailed respecting the use of enormously long guns in wild-fowl shooting, where the object is frequently at a considerable distance, and on account of the peculiar hardness of its feathers, is not so easily brought down as a partridge, pheasant, &c. The author of the "Shooter's Companion," to which we have repeatedly referred, was the first to place this subject before the eyes of sportsmen in a clear and forcible light; and, therefore, to our article on the FOWLING PIECE, which completely embodies the said author's ideas, we refer our readers for further information on the subject.

Candour, however, and common justice compels us to state, that the erroneous notion respecting the length of gun barrels is yet not completely exploded; on the contrary, it is still maintained by those who ought at least to be better acquainted with the subject, since they profess to give advice to others through the medium of the press; but it is happy for mankind, that this almost divine engine (the press) can correct itself, as it were; and thus, though it is occasionally perverted into an instrument for the propagation of crude ideas, consummate ignorance, and besotted stupidity; yet the inconsiderate and flimsy impression which the thoughtless thus receive, vanishes, generally speaking, before the touch-stone of truth, like a pestiferous exhalation before the bright beams of a splendid sun.

Colonel Hawker, in his "Instructions to Young Sportsmen," observes, "a short time ago, I had made up my mind, that a barrel, of whatever size it might be, would kill the farthest, if made forty-eight times the diameter of the intended calibre, and entered in the MSS. for this edition some observations to that effect. But had they gone to the press I should have been open to the criticism of every good experimentalist: for I have since discovered, that *the larger the gun, the longer it must be in proportion* (quite wonderful!) because the further the shot has to travel, the greater must be the resistance of the atmosphere."—(What a discovery!)

The Colonel, to prove his position, talks about guns, the barrels of which, weigh from 59 to 69lbs; weights, we presume, which few sportsmen would feel disposed to carry! and remarks, "fire a fourteen gauge sporting gun, two feet eight inches, or forty-four diameters, at Mr. Manton's iron door, against one of three feet, and there will probably be no difference." Hence it would appear, after all, that Colonel Hawker could not get rid of some lurking doubts in his mind respecting his hypothesis, for he here makes an admission, which overturns "at one fell swoop" what he has wriggled and laboured, so hard and so awkwardly to establish. Colonel Hawker is evidently much attached to wild-fowl and shore shooting; and we have not the least objection to believe that he is very expert at the business; but since he has chosen to give his ex-cogitations to the world through the medium of the press, his work has thus become a fair subject of animadversion; and we must observe, that most of his

notions are stale or a century behind the present state of things; that his ideas are very clumsily expressed; and that his "Instructions to Young Sportsmen," we consider as worse than nothing.

We have already remarked that we considered wild-fowl shooting as a secondary sort of amusement, but preferable in a hard frost to any other time; but to those who are partial to this diversion at all seasons, we would recommend to go well prepared both internally and externally, and never to be without a flask of brandy; water-proof boots are also advisable; and in order to render boots water-proof, the following receipts have been frequently and, we believe, successfully, used:—

One pint of linseed oil, half a pound of mutton suet, eight ounces of bees' wax, and one pennyworth of rosin: the whole to be boiled together, and warmed before using.

Another.—If the boots are new, take half a pound of bees' wax, a quarter of a pound of rosin, and one pound of tallow: to be boiled well together, and warmed before using.

The boots should, of course, be well cleaned from the dirt, and perfectly dry, before the application of either of the above receipts.

The soles of the boots might have a layer of cork, or waxed canvas introduced betwixt them.

Indian rubber dissolved in spirit of wine, spirit of asphaltum, or spirit of turpentine, and rubbed on the boots, renders them completely impervious to water.

Fishermen are said to use the following preparation for their boots:—bees' wax, Burgundy pitch, and clean turpentine, of each, two ounces; clear rendered tallow, four ounces:—all melted together and applied over a weak flame until the leather fills. The liquid should be applied by degrees, and one portion dried in before another is spread over.

As fen birds are by nature extremely shy, and very suspicious of the approach of a human being, so the principal consideration is how to get within gun shot. Various devices have been used for this purpose, and, amongst the rest, the stalking horse (which has been already noticed under its proper head); but the method now generally resorted to for the purpose, is to occupy some station, by which it is expected the birds will pass, when flying to feed. We have already observed that these birds fly and feed at the dawn of

day, and also towards the dusk of evening; these are the times, therefore, which are chosen by the sportsman for effecting his purpose. As the haunts of the fowl are generally known, the stations are taken accordingly, and for the purpose of reaching the most eligible spots, a small boat or punt is frequently necessary; and those who have been accustomed to the business sometimes prove very successful. Such people are able to shoot either by the eye or the ear; for, as the fog or the darkness of the night frequently prevents them from seeing their object, they listen to the noise made by the bird's wings, and direct their aim accordingly—some of these people shoot with astonishing accuracy under such circumstances.

On the extensive marsh called Martin Mere, in Lancashire, many of the cottagers who reside on its borders, make a living during the winter by shooting and catching ducks and fen birds. For this purpose they go out regularly night and morning; and as they are well acquainted with the manner and haunts of the fowl, and the direction of their flights (which will be regulated by the wind) they seldom return home utterly unsuccessful. Those gentlemen who wish to partake of the amusement of fen shooting, cannot do better than put themselves under the guidance of those who reside, as it were, on the marsh.

Those, however, who make a living by catching fen birds do not confine their operations to the fowling-piece; on the contrary, they capture ducks and also other birds (and snipes in particular) by means of snares, placed in and by the side of the water. These snares require attention; for kites and other rapacious birds which are constantly to be seen about marshes and fens, are always on the look out, and when a bird happens to be caught, if it be not immediately taken out of the snare, it is almost sure to be pulled to pieces by them, and the snare, perhaps, destroyed into the bargain.

Fen shooting is, of course, most followed in Lincolnshire and Cambridgeshire, where the most extensive and the best stocked fens are to be met with.

Shore shooting offers, perhaps, superior sport for those who are partial to this species of diversion; of which, Mr. Gilpin has given an interesting description:—"The coast between Hampshire and the Isle of Wight (says he) is peculiar, consisting, at ebb tide, of vast muddy flats, covered with green sea weed: it

affords the fowler an opportunity of practising arts perhaps not elsewhere resorted to. Fowling and fishing are, indeed, on this coast, commonly the employments of the same person. He who in summer, with his line or net, plies the shores, when they are overflowed by the tide; in winter, with his gun, as evening draws on, runs up in his boat among the little creeks which the tide leaves in the mudlands, and lies in patient expectation of his prey. Sea fowl usually feed by night, when in all their multitudes they come down to graze on the savannahs of the shore. As the sonorous cloud advances (for their noise in the air resembles a pack of hounds in full cry) the attentive fowler listens which way they bend their course; perhaps he has the mortification to hear them alight at too great a distance for his gun to reach them; and if he cannot edge his boat round some winding creek, which is not always in his power to do, he despairs of success that night; perhaps, however, he is more fortunate, and has the satisfaction to hear the airy noise approach nearer, till at length the host settles in some plain upon the edge of which his boat is moored: he now, as silently as possible, primes both pieces anew (for he is generally double armed) and listens with all his attention: it is so dark that he can take no aim, for if he could discern the birds they would see him; and being extremely timorous, would seek some other pasture. Though they march with noise, they feed in silence; some indistinct noises, however, if the night be still, issue from so vast a concourse; he directs his piece, therefore, towards the sound, fires at a venture, and instantly catching up his other gun, discharges it where he supposes the flock to rise on the wing. His gains for the night are now decided, and he has only to gather his harvest; he immediately puts on his mud pattens (flat square pieces of board which the fowler ties to his feet, that he may not sink in the ooze) ignorant yet of his success, and goes groping about in the dark in quest of his booty, picking up sometimes many, sometimes not one. So hardly does the poor fowler earn a few shillings, exposed in an open boat during a solitary winter night, to the weather as it comes, rain, hail, or snow, on a bleak coast, a league probably from the beach, and often liable, without great care to be fixed in the mud, where he would become an inevitable prey to the returning tide. I have heard

one of these poor fellows say, he never takes a dog with him in these expeditions, because no dog could bear the cold which he is obliged to suffer; and, after all, others frequently enjoy more from his labours than himself; for the tide often throws, next day, on different parts of the shore, many of the birds which he had killed, but could not find in the night.

“ This hazardous occupation once led a fowler into singular distress; it happened too in the day time, which shews still more forcibly the risk of such nocturnal expeditions. Mounted on his mud pattens, he was traversing one of those oozy plains in search of ducks, and, being intent only on his game, suddenly found the water, which had been accelerated by some peculiar circumstance affecting the tide, had made an alarming progress around him, and he found himself completely encircled: in this desperate situation, an idea struck him as the only hope of safety: he retired to that part which seemed the highest, from its being yet uncovered by water, and striking the barrel of his long gun deep into the ooze, he resolved to hold fast by it, as well for a support, as a security against the waves, and to wait the ebbing of the tide: he had reason to believe that a common tide would not have flowed above his middle; but in the midst of his reasoning upon this subject, the water had now reached him; it rippled over his feet; it gained his knees, his waist; button after button was swallowed up, until at length it advanced over his shoulders: with a palpitating heart, he gave himself up for lost: still, however, he held fast by his anchor: his eye was eagerly in search of some boat, which might accidentally be passing, but none appeared. A head upon the surface of the water, and that sometimes covered by a wave, was no object to be descried from the land, at the distance of half a league; nor could he exert any sounds of distress that could be heard so far: while, as the exigence would allow, he was making up his mind to the terrors of certain destruction, his attention was called to a new object; he thought he saw the uppermost button of his coat begin to appear. No mariner floating on a wreck could behold approaching succour with greater transport than he felt at this transient view of his button; but the fluctuation of the water was such, and the turn of the tide so slow, that it was yet some time before he durst venture to assure himself that the button

was fairly above the level of the flood; at length a second button appearing at intervals, his sensations may rather be conceived than described: and his joy gave him spirits and resolution to support his situation four or five hours longer until the waters had fully retired."

The danger of following wild-fowl in the small boats generally used by these people is much increased when there is ice in the river, by which they sometimes get encircled, and then can only float with the current, and they are often kept two or three tides before they can extricate themselves; and their punt is ill calculated to sustain pressure against its sides, which are not twenty inches high from the surface of the water; in such a vehicle the fowler drops down by night with the tide, or uses his paddles after the fowl; he knows their haunts and takes every advantage of the wind, tide, moon, &c. his gun, which carries as much as a little cannon, is laid with the muzzle over the stem of the boat, in a hitch, which regulates the line of aim: the fowler lies at the bottom of the boat or punt on his belly, and gets as near the fowl that are upon the water as possible; when within the range of his gun, he rattles with his feet against the bottom of the boat, and just at the moment when the fowl spring, he pulls the trigger, and cuts a lane through their ranks; he instantly follows the direction of his shot, and gathers up those that are killed, or just expiring, for it very seldom answers to row after birds only wounded; he then loads again, and drifts farther down the river, in hopes of obtaining more shots. By this mode a man has been known to bring home a hundred wild-fowl of various kinds in one night's excursion. The numbers that are seen in their day flights, and the noises of the various kinds at night, are almost incredible.

The best time for the species of shooting now under consideration is the first or second day's thaw after a sharp frost, and when deep snow has long covered the ground; the fowl are then flying in every direction to dabble in the fresh, which at such periods seems very inviting to them. Another favourable opportunity is at the commencement of a frost, with the wind strong at east, and a sleet or snow falling; the birds are more easy of approach in such weather and always fly lower than when the atmosphere is clear.

The guns used for shooting wild-fowl in punts generally carry about two pounds

of shot, and are fixed in the boat in the manner already described. It need hardly be observed that very large shot is used.

Hearne says, that wild swans, notwithstanding their bulk, are so extremely swift on the wing, when in full feather, as to make them more difficult to shoot than almost any others, it being frequently necessary to take sight ten or twelve inches before their bills. This, however, is only when they are flying before the wind in a brisk gale, at which time they seldom fly at a less rate than one hundred miles an hour! but when flying across the wind or against it, they are not able to make any great progress. Of the Brent geese, he says, that, when migrating to the south, they generally avail themselves of a strong north or north-westerly wind, which makes their flight so swift, that when he has killed four or five at a shot, not one of them fell less than from twenty to fifty yards from the perpendicular spot where they were killed.

A gentleman in the county of Durham, observed a flock of wild geese one morning in April, going northward in the line of two objects, with the distance of which he was well acquainted—it was four miles: he noticed by his watch, as nearly as possible, the time the geese were in flying it, from which he calculated that if they continued to fly at the same rate for twelve hours, they would be at the Orkney Islands by sun set, which would be passing through the air at the rate of five and twenty miles an hour.

On this subject, Major Cartwright, in his Journal of a Residence off the coast of Labrador, observes, "I measured the flight of the eider duck by the following method: viz. on arriving off Duck Island, six miles distant from Henley Tickle, I caused the people to lie on their oars; and when I saw the flash of the guns, which were fired at a flock of ducks as they passed through the latter, I observed by my watch how long they were flying abreast of us. The result of very many observations ascertained the rate of their flight to be *ninety miles an hour*!"

The great art or secret of wild-fowl shooting is the mode of approach; and of late years, this, in some parts, has been improved. The winter of 1821—1822, was very severe; and vast flocks of wild-fowl visited the river Dee in Cheshire. Great numbers of them were seen on the water in the day time; but they were

not easy to approach. Heaps of conglomerated ice and snow floated daily down the river; and this circumstance being noticed by a wild-fowl shooter, he contrived so to disguise his boat, as very well to counterfeit the appearance of these floating masses: he thus contrived to drift amongst his game, and his success was almost incredible.

In India, wild-fowl are caught by means somewhat similar. On the river Ganges, wild ducks are frequently seen in great numbers; and as gourds are constantly floating down the river, the fowlers of these parts took the hint; thus, a man, placing his head in a hollow gourd, in which, small holes were formed to enable him to discern his object, walked into the water, taking care to let nothing be seen but the gourd. The birds, no way suspicious of a sight to which they were so perfectly familiar, suffered the fowler to introduce himself amongst them; when seizing them by the legs, he drew them under water one after another, and fastening them to his girdle, retired when he had captured a sufficient number; or, at least, when he had filled his girdle.

As far as relates to what we consider as the real amusement or diversion of wild-fowl shooting, there is perhaps no part of Great Britain where it can be enjoyed in greater perfection than in the Highlands of Scotland. Great numbers of wild ducks breed on the lakes in these parts that are fringed with cover, or where there happens to be small spots or islands in the midst of them; and in winter these places are visited by vast quantities of wild-fowl, particularly those lakes which have a communication with the sea, where flocks of these birds are very frequently to be seen. Also, on the rocky shores of this part of the world, immense numbers of wild-fowl may be met with at almost any period of the year; where likewise rock pigeons are found in great abundance. On the coast of Caithness, persons go out sometimes upon what may be called general shooting parties; and on these occasions, it would seem that the mere amusement of killing was the principal object, as gulls, cormorants, petrels, or, indeed, any bird which presents itself within reach seems to be considered fair game.

Something of this sort also takes place about the Isle of Man, where the rocks offer a convenient situation for sea-fowl to breed, and to which they resort in almost incredible numbers. Towards the

latter end of the summer, when the young gulls and other young sea birds are able to fly, parties go out, and shoot immense numbers of these birds, which, however, furnish no very great dainty for the table.

The writer is acquainted with a gentleman, who is passionately fond of shooting, but from the circumstance of being lame, is not able to pursue this amusement on land, at least with much satisfaction. He, however, amuses himself with shooting on the water; and is enabled to follow his darling passion with comfort and convenience. He has several boats; and, amongst the rest, one which is decked, and fitted up with cooking apparatus, berths for sleeping, &c.—In this, he coasts along the shore, and shoots such birds as happen to present themselves. From him we were informed that even the sea-gull is tolerable eating when *skinned and properly dressed*; and he even described to us the process of rendering it palatable and *even delicious*; but as few of our readers, we feel persuaded, will feel much interest in the description we shall not tire them with the details. When night approaches, if accommodations happen to be at hand on shore, the boat or vessel is secured for the night; otherwise he and his servants sleep on board. And we are really inclined to think that this is one of the most eligible, and one of the pleasantest, methods of wild-fowl shooting; which, after all, we cannot help considering as nothing more than a mere apology for superior diversion.

Even Colonel Hawker himself, whose life and soul seem to be made up for wild fowl shooting, cannot avoid making an appalling exordium to his own observations on the subject:—"This amusement (says he) is generally condemned as being only an employment for fishermen, because it sometimes interferes with ease and comfort, and *bucks shiver at the idea of being posted, for hours, by the side of a river, or anchored half a night among the chilling winds in a creek!*" It must, we think, be generally admitted that such circumstances form by no means pleasing preludes to wild fowl shooting.

There is a variety of circumstances connected with wild fowl shooting at least on the sea shore, which harmonize but very little with our ideas of diversion: we will again have recourse to the worthy Colonel for information on the subject:—"The Hampshire punts are now built rounder at the stern, and the recoil of the

gun is received entirely by a knee fixed only to the bottom plank (instead of a cross piece) which is far safer, and decidedly less liable to tear away the sides of the punt. The bottom is now made of one elm plank, an inch and a quarter thick, to which the knee is fixed by bolts and screws; and, consequently, as there is no recoil on the sides of the punt, every part, but this plank, is made as light as possible.

As a proof of my former arguments against the safety of the Hampshire punts, I need only observe, that, since my last edition, three men, (Vincent, Jones, and Tanner,) were drowned; and another (Harnet) was killed by his gun. These regular western channel gunners are now, therefore, become very shy of shooting afloat, for which (by having punts that are so *crank*, and draw so much water, and guns proportionably so short in the barrel) they have always been the worst equipped of any '*big gunners*,' (as they call themselves) on the British coast.

They have, therefore, of late years adopted an entirely new mode of getting at the birds, for which that vast track of ooze near Lymington is better calculated than any other mud in the world.

They start off generally in the afternoon (provided the tide serves, so as to be low enough at the proper time) keeping as close as possible to the shore, and going before the wind till they arrive at the leeward end of their beat; the whole track of which, for one night's work, may be about five or six miles. They then go ashore, and either get into a pot-house, if they have a six-pence to spend, or lounge about the shore till day light disappears, and the birds begin to fly, having first put all '*in order*;' that is, to draw out their mould shot, which they generally have in, for the chance of a goose, '*going down along*,' put in smaller shot, and regulate their gun, so that it will bear about eighty yards, when the punt is on the dry mud. No sooner are the wigeon pitched, than off they set in tarpaulin dresses, and looking more like chimney sweepers than gunners, *crawling on their knees, and shoving the punt before them on the mud!* No matter whether light or dark, few

birds or many, *bang* goes the gun; and no sooner have they picked up what few birds are readily to be found, or missed the fowl, which they very frequently do, as the punt, by even a few perriwinkles, might be thrown off the line of aim, they proceed again; thus travelling all night (by '*launching*' over the mud, and rowing across the creeks) in a direct line, similar to the march of an *army of coots*."

Those who are anxious for further information on the subject of "*shoving*" punts or boats over the mud, and the like, we refer to the *very luminous* work of Colonel Hawker, where they will find considerable *verbiage*, if not much acuteness of remark, or elegance of diction.

We will be candid and do the Colonel justice: for amongst the wretched and contemptible mass of worse than nonsense, which he has published under a very specious title, there is one paragraph which bears the stamp of sense and reflection:—we will quote it:—"In getting at all wild birds, approach them circuitously, instead of going directly up to them; and avoid looking full at them until you have got within shot, or till they shall, if flying, have come sufficiently close for you to fire. If you see a wild bird, when unprepared for him, either continue your course without looking at him, or instantly retreat, and he may then probably sit quiet till you can advance with caution on him a second time. If a valuable bird lies wounded, always go up to him prepared to shoot, lest he should rise again and make his escape."

For the purpose of wild fowl shooting, the French form huts near the haunts of the birds, disguising them as much as possible, having loop holes, as it were, through which to fire.

There are several of the larger kind of birds, which perhaps may be classed among wild fowl, such as the heron, the bittern, &c. These are sometimes to be seen on the sea shore, but generally in the fens and marshes; where they sometimes present a shot to the sportsman; though they are in general very shy of approach; and even when killed, they do not furnish a dainty for the table.

WILD TURKEY. In some parts of America, the turkey is found in a state of unlimited freedom, associating in flocks, sometimes to the amount of five hundred, and affording good diversion to the transatlantic sportsman.

In Canada, pursuing these birds forms one of the principal diver-



sions of the natives of that country. When they have discovered the retreat of the turkey, which in general is near fields of nettles, (of the seeds of which they are particularly fond) or where there is plenty of any kind of grain, they send a well trained dog into the midst of the flock. The birds no sooner perceive their enemy than they run off at full speed; the dog pursues, and the birds, in order to escape from him, are compelled eventually to take shelter in a tree; where they remain till the sportsmen come up, when they suffer themselves to be knocked down one after another, which is done, we are told, by means of long poles.

It appears that in the wilds of America, the turkey grows to a much larger size than with us. Josselyn says that he has eaten part of a turkey cock, which, after it was plucked and the entrails were taken out, weighed thirty pounds.

Turkeys frequent the great swamps of America to roost; but leave these situations at sun rise to repair to the dry woods in search of acorns and berries. They perch on high trees, and gain the height they wish by rising from bough to bough: they generally mount to the summits of even the loftiest. They are very swift runners, but fly awkwardly; and about the month of March they become so fat that they cannot fly beyond three hundred yards, and are then easily run down by a horseman, when they happen to be found in situations calculated for the purpose, or for such a chase.

Michaux, in his travels to the Allegany Mountains, says, "The wild turkeys, which begin to be very scarce in the southern states, are plentiful in those to the westward. In the most uninhabitable parts, they are so tame as to be easily killed with a pistol shot. In the east, on the contrary, and particularly in the neighbourhood of the sea ports, they cannot be approached without great difficulty: they are not alarmed by a noise; but they have a very quick sight, and so soon as they discern the hunter, flee away with such rapidity, that it takes a dog several minutes to come up with them: and when they perceive themselves on the point of being caught, they escape by taking flight. The wild turkeys generally perch on the tops of the highest trees, where, notwithstanding their bulk, it is not easy to see them; when they have not been frightened, they return to the same trees for several weeks in succession.

To the east of the Mississippi, in a space of more than eight hundred leagues, this is the only sort of wild turkey which is met with. They are larger than those reared in the poultry yards. In autumn and in winter, they feed chiefly on chesnuts and acorns; and some of them, killed at these seasons, weigh thirty-five or forty pounds."

Turkeys were not known till the year 1524. This bird is so well known as not to require description; their colours vary, but in all of them, the tuft of black hair upon the breast of the male is prevalent.

WIND-GALL. A puffy kind of swelling or tumour which yields to the pressure of the finger, but upon removing the pressure recovers itself and pushes out as before. They have been thus named from a false notion of their containing nothing but air, or wind. These tumours are often seated on both sides of

the back-sinew of a horse, above the fetlock on the fore-legs, but most frequently on the hind-legs. They are quite loose and detached from the parts on which they grow, and exhibit the same signs wherever they are met with, whether in the hocks or about the knees; for these swellings are not confined to the lower limbs only, but appear in any of those parts of a horse's body where the cellular membrane can be easily separated; and they exist, for the most part, without occasioning pain.

Wind-galls are usually caused by riding on very hard roads, or on dry hilly grounds. Sometimes travelling horses, when they are worked too young, before the limbs are grown firm and vigorous, will have them. Gibson says they sometimes proceed from constitutional weakness, especially in bulky horses, that are somewhat under limbed and fleshy about the fetlock joint. These, he says, he has known to have wind-galls without any strain, hard riding, or other ill usage.

When these tumours appear upon the hind legs they never cause lameness, though such horses are often stiff behind after riding. When on the fore-legs, they always make a horse go lame at first; but afterwards that tenderness goes off in a great measure, and they seldom go lame, but stiff, and inclinable to stumble. They generally recover, however, with a day's rest. Those flatulent swellings indeed that come in the ligaments of the hocks are always troublesome, disfigure the animal, and, unless speedily assisted, will cause incurable lameness. At first they are but small, but in time they grow to the size of a pullet's egg perhaps, and push out on each side of the hollow of the hock. Swellings of the same kind also appear above the knee, where they often precede a diseased joint. Very small similar swellings under the fore-part of the knee, in the interstices of both sides of the joint, are also dangerous; but these seldom happen, and are usually caused by some violent strain, especially when a horse falls down upon a descent with his whole weight upon his knees. The other flatulent swellings which horses are subject to seldom cause lameness, but are, for the most part, easily cured. We mean those that arise in the interstices of the large muscles of the hips and thighs, which are distended like little bladders filled with air. These come by strains and over exertion; for draught horses are the most subject to them of all others. Wind-galls

that proceed from mere weakness are seldom curable, unless the constitution can be improved; but we often see horses that were subject to wind-galls when young, get the better of them as they grow to maturity.

Wind-galls that proceed from hard riding, or the other causes above mentioned, are more easily prevented than cured; for though few horses go lame with these tumours, yet they always disfigure the part where they are situated; and therefore young horses of value ought not to travel much, especially with heavy riders, before they come to their full strength. If they swell about the pasterns, and the swelling does not ascend towards the knee, but with an apparent fullness on each side the back sinew, it is to be suspected wind-galls are taking place. With a view to prevent their progress, Gibson advises us to bathe them well with vinegar or verjuice, or other powerful astringents.

But when wind-galls are grown pretty large, they feel like kernels or indurated glands. If these be in the hind-legs, it is scarce worth while to meddle with them; as we see many good hacks and road horses travel long journeys with these defects without going lame; but when they are situated on the fore-legs, they are apt to make a horse trip and stumble, or at least appear very stiff after riding. In this case the cure may be attempted by mild blisters. Some merely pierce them with a lancet, but that often inflames and renders them more obstinate, whilst blisters, often repeated, dissipate them effectually. Gibson says, blistering always has this effect in those wind-galls that arise above the fetlock, and sometimes he has known blistering alone to succeed in these tumours when situated on the hocks; but this has been repeated, at times, for the space of a year or a year and a half, working the horse as usual in all the intervals. These accidents happen chiefly to coach horses and others that draw heavy loads, and the best way to manage their blisters is this: a little blistering ointment should be laid on every other day for a week, which brings on a plentiful discharge, and when this is dried up, which generally happens in a few days, the horse may go to his usual work for three weeks or a month, after which the blistering may be repeated, if it be a convenient time for the owner, or at any other season when the horse can have a little rest. Horses have been blistered in this

manner six or eight times within the year, by which means they daily got some ground. The swellings gradually were reduced, the parts strengthened, and no manner of blemish has been left, nor any loss of hair, and the lameness has been entirely removed. Firing is indeed a more expeditious remedy, being but a single operation, which is seldom or never repeated; yet firing not only leaves blemishes, but Gibson asserts it is, for the most part, an imperfect cure, as there always remains a stiffness and fulness about the joint; and the only good obtained by it is, that it stops the progress of the malady, and renders a horse much

more useful than he was before the operation.

For those flatulent swellings that sometimes rise near the joint of a horse's knee, if astringent applications have not force enough to remove them, the best way is to blister without delay, for when these are seated near the knee they prove dangerous, unless speedily removed. For this reason, firing is also proper after blistering; but this should be done with a small iron, and the lines or rases made as near to one another as possible, afterwards covering the whole knee with a mercurial application.

WINNERS OF THE DERBY, OAKS, AND ST. LEGER STAKES, FROM THEIR COMMENCEMENT.

	DERBY.	OAKS.	ST. LEGER.*
1778	- - - -	- - - -	Hollandaise
1779	- - - -	Bridget	Tommy
1780	Diomed	Tetotum	Ruler
1781	Young Eclipse	Faith	Serina
1782	Assassin	Ceres	Imperatrix
1783	Saltram	Maid of the Oaks	Phenomenon
1784	Serjeant	Stella	Omphale
1785	Aimwell	Trifle	Cowslip
1786	Noble	The Yellow Filly	Paragon
1787	Sir Peter Teazle	Annette	Spadille
1788	Sir Thomas	Nightshade	Young Flora
1789	Skyscraper	Tag	Pewett
1790	Rhadamanthus	Hippolyta	Ambidexter
1791	Eager	Portia	Young Traveller
1792	John Bull	Volantè	Tartar
1793	Waxy	Cælia	Ninety-three
1794	Dædalus	Hermione	Beningbrough
1795	Spread Eagle	Platina	Hambletonian
1796	Didelot	Parisot	Ambrosio
1797	Br c by Fidget	Niké	Lounger
1798	Sir Harry	Bellissima	Symmetry
1799	Archduke	Bellina	Cockfighter
1800	Champion	Ephemera	Champion
1801	Eleanor	Eleanor	Quiz
1802	Tyrant	Scotia	Orville
1803	W.'s Ditto	Theophania	Remembrancer
1804	Hannibal	Pelisse	Sancho
1805	Cardinal Beaufort	Meteora	Stavely
1806	Paris	Bronze	Fyldener
1807	Election	Briseis	Paulina
1808	Pan	Morel	Petronius
1809	Pope	Maid of Orleans	Ashton
1810	Whalebone	Oriana	Octavian
1811	Phantom	Sorcery	Soothsayer
1812	Octavius	Manuella	Otterington
1813	Smolensko	Music	Altisidora
1814	Blucher	Medora	William

* In 1776, a sweepstakes on exactly the same conditions as that which was afterwards named the St. Leger, was won at Doncaster, by Lord Rockingham's br f by Sampson, and in 1777, by Mr. Sotheron's Bourbon; but the first St. Leger, so called at the time, was won by Hollandaise.

	DERBY.	OAKS.	ST. LEGER.
1815	Whisker	Minuet	Filho da Puta
1816	Prince Leopold	Landscape	The Duchess
1817	Azor	Neva	Ebor
1818	Sam	Corinne	Reveller
1819	Tiresias	Shoveller	Antonio
1820	Sailor	Caroline	St. Patrick
1821	Gustavus	Augusta	Jack Spigot
1822	Moses	Pastille	Theodore
1823	Emilius	Zinc	Barefoot
1824	Cedric	Cobweb	Jerry
1825	Middleton	Wings	Memnon
1826	Lapdog	Lilias (now Babel)	Tarrare
1827	Mameluke	Gulnare	Matilda
1828	Cadland	Turquoise	The Colonel
1829	Frederick	Green Mantle	Rowton
1830	Priam	Variation	Birmingham
1831	Spaniel	Oxygen	

WITHERS. The part of a horse so at the termination of the mane, from called, is the superior point of the shoul- whence the back begins.
ders, situate above the blades, precisely

WOLF. It is very well known that wolves were formerly very common in this country ; but as the population increased, and as the cultivation of the soil proceeded accordingly, these animals retired before the arts of civilization, and have long since been extinct. The extermination of the wolf in England was first attempted by Edgar ; and this monarch remitted the punishment of certain crimes on producing a specified number of wolves' heads ; and commuted the tax of gold and silver imposed upon the Welsh for an annual tribute of three hundred wolves' heads. However, some centuries after this period, wolves had increased so much as to become an object of attention to Edward I. who, in the ninth year of his reign, issued his royal mandate to Peter Corbet, to superintend and effect their destruction in the counties of Gloucester, Worcester, Hereford, Salop, and Stafford. In other counties great rewards were also given for destroying them. Camden informs us that certain persons held their lands on condition of hunting and killing the wolves that infested the country ; whence they were called the *wolvehunt*. In the reign of Athelstan, wolves were so numerous on the wilds (now called *wolds*) of Yorkshire, that a retreat was built at Flixton to defend passengers from their attacks. As the ravages of these animals were greatest during the winter, particularly in January, when the cold was severest, our Saxon ancestors distinguished that month by the title of *wolf-month*. They also called an outlaw, *wolfshed*, as being out of the protection of the law, and as liable to be killed as that destructive beast.

The Scottish monarch, James I. orders his "Schireffs and Barons to hunt the wolf four or thrie times in the yeare, betwixt St. Mark's Day and Lambes, (from April 25 to August 1) quich is the time of their quhelpes."—The succeeding monarch, James II. by act of parliament, about the year 1451, directs the sheriffs "to hunt and slay the woollfe and her quhelpes, three times in the year ; and all indwellers of the shire shall rise with them, under pain of one *wedder*." The last refuge of these animals in Great Britain was in the High-

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lands of Scotland ; where the last wolf was killed by Sir Ewen Cameron of Lochiel, in the year 1680, in the Lochaber mountains ; where, from the rugged and frightful nature of the country, it might be naturally enough supposed, that these fierce creatures would make their last stand.

In Ireland, wolves continued after this period : the last presentment for killing wolves was made in the county of Cork about the year 1710 ; though a wolf is mentioned as having been killed in this country so late as the year 1730.

The wolf generally brings forth five or six at a litter, and occasionally eight or nine. The whelps are born blind, and the dam suckles them for about two months ; and soon teaches them to eat flesh, which she prepares by tearing it into small pieces. She then brings them young hares, partridges, and living fowls, which they at first play with and then kill. In about two months they follow their dam, who leads them abroad to some neighbouring pool to drink ; she conducts them back again ; or, when any danger is apprehended, obliges them to conceal themselves elsewhere. When they are attacked, she defends them with intrepidity ; losing every sense of danger, and becoming perfectly furious. She never leaves them till their education is finished, and they have acquired talents fit for rapine.

The wolf is larger and more muscular than the generality of dogs ; his colour a sort of brown grey, though there are black wolves, and white wolves are, we believe, sometimes met with. These animals are natives of almost all the temperate and cold regions of the globe.

Wolves are now but rarely seen in the inhabited parts of America ; yet the government of Pennsylvania, some years ago, allowed a reward of twenty shillings, and that of New Jersey of thirty shillings, for the destruction of every wolf. Tradition informed them what a scourge these animals had been to the colonies, and by these means they wisely prevented the evil. In the infant state of the colonies, it is said that wolves came down from the mountains, often attracted by the smell of the bodies of hundreds of Indians who died of the small-pox : but the animals did not confine their insults to the dead, they even devoured, in their huts, the sick and dying natives.

When pressed by hunger, the wolf, though naturally shy, becomes courageous from necessity : he then braves every danger, and will venture to attack even the buffalo. Sometimes whole droves of them descend upon the sheep folds ; and, scratching away the earth from under the doors, enter with dreadful ferocity, and put to death every living creature before they depart.

“ By wint’ry famine rous’d, from all the tract
Of horrid mountains, which the shining Alps
And wavy Appenine and Pyrennees
Branch out stupendous into distant lands,
Cruel as death, and hungry as the grave !
Burning for blood ! bony, and gaunt, and grim !
Assembling wolves, in raging troops, descend ;
And, pouring o’er the country, bear along,
Keen as the north wind sweeps the glossy snow :
All is their prize.”

Although the wolf is the most gluttonous of quadrupeds, devouring even his own species when pressed by hunger, yet his rapacity does not exceed his cunning: always suspicious and mistrustful, he imagines every thing he sees is a snare laid to betray him. If he sees a rein-deer tied to a post to be milked, he dares not approach, lest the animal should be placed there only to entrap him; but no sooner is the deer set at large, than he instantly pursues and devours it. Such, however, is sometimes his extreme cowardice, that, should the animal stand at bay, and act on the defensive, he will scarcely dare to attack it. A cow or goat, by turning upon and butting him with its horns, has often been known to put him to flight.

In Norway, wolves are often killed by means of a poisonous species of lichen, which the inhabitants put into the dead body of some animal and lay in their haunt. Sometimes they are caught by means of a hole dug in the ground, and covered with a trap door; which falls and lets them in, and shuts again. In these pits, the cowardly animal has been found in a corner with other beasts, which his fears would not suffer him to touch. Instances have occurred even of peasants falling into these traps, and sitting quietly with a wolf till released.

The wolf has great strength, especially in the muscles of his neck and jaws: he can carry a sheep in his mouth, and run off with it without any difficulty. When reduced to extremity by hunger, we are told by Pontopiddan (who, by the bye, is not the best authority in the world) that he will swallow great quantities of mud, in order to allay the uneasy sensations of his stomach. His sense of smelling is very acute; he scents the track of animals and follows it with great perseverance; and the smell of carrion strikes him at the distance of nearly a league.

In 1764, an animal of this kind committed peculiar ravages in some particular districts of Gevandau, in Languedoc, and became the terror of the whole country. If the accounts then given in the Paris Gazette may be trusted, he was known to have destroyed at least twenty persons, chiefly women and children. With the usual aggravation of popular description, he was represented by some who had seen him, as far surpassing in size the rest of his species, and as striped somewhat in the manner of a tiger.

Buffon brought up several wolves. When young, or during the first year, (he informs us) they are very docile and even caressing; and, if well fed, will neither disturb the poultry nor any other animals; but, at the age of eighteen months or two years, their natural ferocity begins to appear, and they must be chained to prevent their running off and doing mischief. He brought up one till it was eighteen or nineteen months old, in a court along with fowls, none of which it ever attacked; but, for its first essay, it killed the whole in one night, without eating any of them. Another having broken his chain, ran off, after killing a dog with whom he had lived in great familiarity.

The wolves, in the northern parts of the world, sometimes get upon the ice of the sea, during the spring, in quest of young seals, which

they catch asleep there. But this repast frequently proves fatal to them; for the ice, detached from the shore, carries them to a great distance from the land before they are sensible of it. It is said, that, in some years, a large district, is, by such means, delivered from these pernicious beasts, which are then heard howling in a dreadful manner, far out at sea.

In the wolf, there is nothing valuable but his skin, which makes a warm and durable fur. His flesh is so bad, that it is said to be rejected with abhorrence by all other quadrupeds; and no animal but a wolf will voluntarily eat a wolf. The smell of his breath is excessively offensive; since, to appease his hunger, he swallows, almost indiscriminately, every thing he can find; as corrupted flesh, bones, hair, and skins half tanned and even covered with lime. In short, the wolf is, in an extreme degree, disagreeable—his aspect is savage, his voice dreadful, his stench insupportable, his disposition perverse, his manners ferocious; he is destructive and odious to mankind while living; and, when dead, of little use.

WOLF HUNTING. This amusement is followed on the continent of Europe, and particularly in France; and at first view of the case, it might be supposed, that no animal could be better calculated to afford diversion before a good pack of hounds; but this does not appear to be exactly the case. As we have never been at a wolf hunt ourselves, we must be guided by what others have said on the subject; not, however, without giving our own opinion as opportunity may offer. Whatever appears like truth we are willing to adopt; but that which is at variance with common sense and reason, we generally reject: or, if we give it, we do not fail to qualify it with our own observations.

In the present case, we shall, in the first place, have recourse to the Rev. W. Daniel; for although on most sporting subjects he manifests the most egregious ignorance, yet, as, on the subject of wolf hunting, he only relates what he has been told, so we shall therefore, take the liberty of relating it after him. "The Compiler requested a friend (says he) who had his regular establishment of fox hounds in France, to inform him how far the chase of the wolf was successful, or likely to be so, when prosecuted by the vigour and speed of the English foxhound, and his reply was to the following purport:—'You wish me to communicate my observations on wolf hunting, which I shall most readily do, but must first apprise you, that neither with my own hounds, which I took with me to France in 1774, nor with the hounds of the Count de Serrent, which

were under my direction some years before, did I hunt the wolf by choice. The Count de Serrent's pack consisted of about thirty couple of French hounds, larger than the English stag hound, fifteen couple of them were kept for stag hunting only, and with the remainder they hunted the wild boar and the wolf. The first time I ever met the Serrent hounds was at a wolf hunt, where a bitch wolf had littered in some woods of the Count's, far distant from the forest. The woods were nearly surrounded by the officers of the carabineers, each person with a double barrelled gun, some with small bayonets fixed, and all were loaded with ball. As soon as each sportsman had taken his station, the huntsman and hounds entered the wood; they found immediately; the hounds divided, and I, who was unarmed, tallyhoed the old bitch wolf, who went off for the forest in the most gallant style. My English halloo amused some of the French, but enraged others, who declared that if the huntsman had not fortunately stopped the hounds, they would have gone off with the old wolf, and this indeed was my intention. The stopped hounds were clapped back to those running the cubs in the cover, and which were said to be about three or four months old; they were taller than the fox, and shewed, by the looseness of their make, and the vast size of their bone, in their then infant state, what they would be when arrived at their full growth: that, however, was forbid, for all but one were shot that day, and the remaining one was killed the day following by one of the Count's keepers. These cubs,

whilst hunted, never quitted the covers, nor was it supposed they had ever been out of them, for the forest towards which the old wolf pointed, was between four and five leagues distance from the woods where she littered. I often hunted wolf afterwards, and the result was, that the wolf was either shot in quitting the cover in which he was found, or by some keeper or person who accidentally saw him in his route, or he escaped by going off at one steady pace, until he left the hounds, horses, and men totally beat, and who were generally relieved by the hospitality of some curée, and enabled to return home the next day. It is asserted that the wolf, whose pace seems for the most part to be regulated by that of his pursuers, will stop when no longer pursued, and the hounds may attack him again the next morning; perhaps so, but will not the wolf be equally refreshed by his night's repose as the hounds? Admitting that the wolf does stop, he gives his enemies a fresh chance, because formerly there was scarcely a parish in France that had not one or more gamekeepers. The huntsman, who hunted the wolf related where he gave him up, how much he appeared fatigued, and which way he pointed, to the keepers, when his chase ended; they possibly guessed where the wolf rested that night, and by properly placing all the assistants they could collect, a shot was got at him when he broke cover, in the same manner as he had been fired at on the preceding day. Upon remarking this risk of being shot which the wolf had to escape, to a French gentleman, he assured me, that a friend of his, who kept hounds for the wolf only, never fired on the wolf until (unable to run any further) he turned upon the dogs, and this generally happened about the fourth or fifth day. This sounds strange hunting to us English fox hunters; but I declare to you, that I am not prepared to deny the fact."

In Colonel Thornton's "Sporting Tour through France, we find the following description of a wolf hunt:—"The intense heat of the day did not prevent us from throwing into the forest at four o'clock, and we soon roused a wolf, of which we had a view for five or six miles: however, there was no probability of killing him, but by shooting him, and this was not easily done, as the cover was extremely thick in underwood and heath, the avenues having been entirely neglected since the Revolution.

I heard several shots in different parts,

and some of them so near together, that I did not suppose them to be at the same animal: however, the cry returned, and I faintly saw something rush near me. The hunters came up and informed me, that they had just shot at a wolf; and one of the party said, in an exulting tone, he was confident that he had mortally wounded him.

I had twenty-one balls in my seven barrelled gun, and trusted that if I could get a shot the least clear of cover I should wound the game. We then took our respective stations in the *allées*, all agreeing, as is necessary, to shoot forwards. In about half an hour, I heard the cry no more, and therefore dashed on at a good rate for two miles, when I heard the hounds, but very faintly. Having placed myself in what I thought a likely pass, I heard a rustling, and soon discovered an animal listening, about sixty yards distant. Agitated as I was at the moment, I could not decide whether I should fire. I was certain of hitting with some of the balls; but as the cry continued to advance, I resolved to wait, and in a little time, *my gentleman* passed the avenue. He seemed jaded, and was evidently hit in the hinder parts. I then fired, but whether successfully or not, I could not tell. Running up to the boughs, where he had appeared, I found them cut, and, on carefully examining the range of the balls, I conceived that I had certainly wounded him; in consequence of which I remounted my horse, and tallyhoed so as to make the forest ring. In about ten minutes a couple and a half of my hounds appeared nearly together. Caustic and Consul, grandson and granddaughter of Merkin, of true Conqueror blood, seemed the most vermin. They flew counter down the avenue, but I hallooed them back; and, at this instant, three couple and a half, out of my four, came in, and were immediately followed by Vixen (a terrier) who appeared full as vicious. I capped them, and they went off at a rattling pace after the wolf, but still they were almost mute.

Having galloped on to the next avenue, I was joined by some straggling gentlemen, and at length by the huntsman, whom I informed of what had transpired. He was in raptures with my hounds, and exclaimed—"Par Dieu, Monsieur le Colonel, ce sont des véritables chiens, ils sont superbes. Ils tueront non pas seulement tous les loups, mais aussi le diable." If I hallooed like a madman, he certainly

was not behind me in blowing, for I really thought he would have burst either himself or his horn. The rest of the sportsmen, being furnished with horns, blew in concert, and the noise they made has never been out of my ears.'

Another shot proclaimed that the game was again seen, when he turned shorter and the hounds got nearer; and, on my representing to the gentlemen that our hounds would soon outrate him, they politely agreed to fire no more. The wolf was now frequently seen, and at every time the horns gave notice. He crossed an avenue that was tolerably clear, when Vixen, who had joined us, saw him, and, although just before jaded, the little devil got the scent and gave tongue. When she seemed to be near and teasing him, my hounds came up within two hundred yards of his jack, all in a sheet; and even some of the French hounds, which had given up the chase, now came in; one of them, between a Newfoundland dog and a deep mouthed Norman hound, worked very hard. The huntsman said, 'Monsieur le Colonel, ce chien Norman est un gaillard, il aime les loups. Il sera bientôt mort.' But (I replied) I fear he will wound my hounds severely, there are so few. If indeed the pack were here, I should not fear him. 'N'ayez pas peur, Monsieur le Colonel (rejoined the huntsman) je serai proche, et je lui flangerai un coup de mon carabine.'

At this moment, the wolf turned to us, when the terrier, having a decided advantage from the thickness of the cover, continued catching at his haunches. I hallooed, the huntsman blew away, and the game was now at the point of death, surrounded by his enemies. His tongue hung out, and he was evidently wounded in more places than one, as he could scarcely draw his near hind leg after him. After he had been tormented for some time by Vixen, he came to a sort of opening in the ride, but in crossing some deep ruts, he fell, and could not recover himself. The Norman hound and three others rushed in, and threw him on his back. He snatched, but they seized him by the throat and back, whilst Vixen had good hold of his haunch. I thrust the end of my whip in his mouth, and the huntsman coolly tied his nose, and drew his *couteau de chasse*, which I told him was unnecessary; the hounds being at him, he must soon expire.

Having blown our horns and hallooed till we were almost dead with drought, we

tied our horses to some trees, and sat down whilst the wolf was dying. The huntsman said it was a '*gros loup de quartier année*;' and I observed he had a famous set of grinders and good dog teeth.

He had received from the first fire of M. de Beaumont, a small pistol ball through the upper part of his back, and one buck shot had grazed his neck. My balls, being rifled very neatly, were easily known; two of them had entered the fleshy part of the thigh, and a third, which crossed the kidneys, seemed to have given the mortal wound, as, without that, the huntsman said, he would have stood much longer: his brush had suffered from some balls, which almost every gentleman present asserted to have been his own.

Having opened our canteens and taken some refreshment, I ordered the carcase of the wolf to be thrown to the hounds, and the greatest part of it was soon devoured; but the French hounds would not touch it. On examining the dogs, we found that one of Consul's ears was almost bit off, Caustic was sadly cut on the side of her face, and the rest a little injured. Vixen has escaped with only a bloody nose: that was indeed a severe wound for a terrier, but she did not seem to mind it; and indeed they all suffered much less than I expected.

Thus terminated about ten o'clock what I had been so anxious to see, a wolf hunt, and I had now ascertained what might be done with foxhounds." This wolf hunt took place in the forest of Berci.

Colonel Thornton says the chase of the wolf has this advantage over all others, that, while it is of itself extremely sporting, it is, at the same time, very useful and often necessary; nothing being more destructive than those animals which have frequently desolated the country, either by surprising the flocks, or by attacking children, whom they carry off and devour. Those who have lived for any time at a distance from large towns (in France) must know how formidable is the neighbourhood of wolves, particularly when they have young ones to support. These animals are extremely ravenous, and almost always hungry; when they find nothing to satisfy their appetite in the woods, they spread themselves over the country, entering villages, and seizing, with incredible dexterity, whatever is capable of appeasing their hunger. They lie in wait for their prey, and scarcely ever fail to attack it the first favourable

opportunity that presents itself. They, besides, make dreadful havoc among the deer in the forests, particularly in winter. The public interest, as well as their own, should therefore induce the lovers of the chase to make war on this animal.

Before we proceed on this subject (observes Colonel Thornton) it may perhaps be necessary to observe, that the hunting of the wolf being entirely confined to the countries of the Continent, and particularly to France, many of the technical terms employed in this interesting sport are of such a nature, that it is impossible to render them into the English language. The original, will be therefore, in many cases, retained.

Terms employed in Hunting the Wolf. Wolves are divided, according to their age, into cub-wolves, old wolves, and wolves: their age may be discovered by their feet, and their footsteps are called the track of the wolf.

When the wolf goes a gentle pace, without hurrying himself, he is said to go with confidence.

When he goes in quest of food, it is said he is seeking food, he is going to feed on carrion, he seized the carrion, he glutted himself with carrion.

In the season of copulation, wolves are said to be at heat.

When the wolf has covered the female, it is said, the wolf has coupled, the wolf has coupled or lined the she wolf.

When they have produced young, they are called a litter of young wolves.

We say the head, the teeth, the skin, of the wolf.

The nipples of the she wolf are called teats.

The places where they have scratched up the earth, are called *dechaussures*, and we say the wolf has torn up such a place.

The place where a wolf lies is called his kennel.

When we see the wolf of which we are in chase, we cry *Veletau, Veletau! harlou, (from au loup) chiens! harlou! velec aller! velec aller!*

We say the howling of wolves; to howl for wolves is to entice them to you, that you may shoot them in the night.

Manner of distinguishing a he-wolf from a she-wolf by the feet.—The he wolf has a larger and thicker foot than the she-wolf. When the wolf is young, his foot expands as he walks; when he grows old, his foot is narrower, both before and behind; his claws are thick, long, and close; his heel thick and broad, and the fore part of the

foot thicker than the hinder part. When the wolf goes with assurance, that is, when he walks his ordinary pace, he commonly puts the hind foot into the step or track of the fore foot. It is easy to perceive this in wet weather or in snow; but when he goes at a trot, the hind foot keeps at the distance of three fingers from the fore foot. The she-wolf has a longer and narrower foot than the male; her heel is smaller and closer; and her claws are not so strong.

Manner of discovering the places where she-wolves have littered.—In the month of August or September, the cubs having acquired a little strength, begin to walk about, and to sport among the thickets; and, in particular, take notice of all the places near where there are marshes. The females usually seek those situations, as well for the convenience of retreat, as to allay the burning thirst caused by the season, and the food on which they subsist. It is commonly in the morning and evening that the young wolves go to the marshes. You may take young dogs to the spot, but you ought to have one in particular that is well trained to that kind of search; in beating the wood, he will not fail to discover the wolf, he will even pursue him, rouse him, and follow him to his haunt; when there, you should caress and encourage him, to induce him afterwards to go and pursue him alone. The movements of the old dog will animate the younger; you should therefore sometimes send him forward to excite the others, and afterwards you may call him behind to see whether the young dogs are capable to go by themselves; and as the young wolves will not easily quit their situations, you must make the dogs return to the charge and follow the scent, and then, after having encouraged them, call them off.

To train young dogs to hunt the wolf, the sportsman must proceed in the following manner:—He should take them to the wood every two days, towards the places which he supposes to be frequented by the wolves; he cannot fail to discover them, because the he or she-wolf always goes in the morning to the cubs, and then retires into other thickets to deceive the hunters; it is then that you have an excellent opportunity of employing blood hounds to advantage. The thickets chosen by the wolves for their retreats are easily known; near them there are always fragments of their prey, by which they are betrayed, as bones of horses, skeletons of

dogs and other animals. It is besides, easy to remark, whether the grass about the spot is trodden, which is a sign that the young wolves have come thither to lie down.

Equipage for Wolf Hunting.—In this respect, it is not necessary to go to any great expense, as twenty-five or thirty hounds are sufficient. They ought to be of a good size, to have a grey coat, and to be marked with red about the eyes and on the cheeks; by these marks you may discover their greater or less degree of eagerness in the chase. You ought likewise to have six or eight leashes of large stout greyhounds, and some good whelps. They encourage each other, and attack the wolf with the greater vigour. A good whipper-in also is highly necessary, two attendants for the blood hounds, two for the hounds, and one to slip the greyhounds.

Your bloodhounds for hunting the wolf cannot be too good; they ought to be bold, lively, and full of ardour. When they possess all these qualities, you derive from them a two-fold advantage; for besides that which you enjoy in the chase, they likewise serve to train other dogs. A good sportsman ought to be prudent as to the service he requires of his dogs, and he should be very careful of them, for the chase of the wolf is more fatiguing to the bloodhound than any other kind, the wolf being naturally crafty and mistrustful. From the moment that he perceives they are after him, he is constantly going, and when he finds himself pursued, he changes his abode, and leads his pursuers a very fatiguing chase. It is therefore advisable to spare the blood hounds, and to make them serve alternately. A day of rest gives them fresh ardour, and enables the sportsman to hunt with more satisfaction.

The Search of the Wolf.—The wolf is tried for in various ways, according to the difference of the seasons. If it be in winter, you should go to the wood some time before sun rise, because that is about the time that the wolves repair to it. In summer, there is no occasion to go so early, because these animals frequently stay among the corn, and do not return to the wood till the day is advanced. Therefore, without being in too great a hurry, it will be sufficient to beat twice along the skirts of the thicket towards the cover, and if you meet with nothing, it will be advisable, on your return, to beat the contrary side.

There is a considerable difference between trying for the stag and the wolf.

The former remains a long time in the thickets; sometimes he does not even leave them to pass the night in the open fields; but the conduct of the wolf is the reverse. Hunger, it is said, drives him out of the wood; and, as he subsists entirely by carnage, he will frequently approach farms, villages, and even towns, and seize whatever falls in his way. If by accident, he remains a considerable time in a thicket without quitting it, even during the night, it is only when he has taken a deer, or some animal that he is occupied in devouring.

When the assistant huntsman shall have arrived with his *Limier*, or bloodhound, at the place containing the object of search, he must loosen the leash, and make his dog advance before him more than half the length of it, continually caressing him and saying—*Va outre Ribaut hau, mon valet! hau lo lo lo lo! veleci! veleci allé, mon petit!* It is well frequently to repeat these words, because nothing more encourages and animates the dog in the pursuit. You must take good care that the bloodhound may not take the scent of some wolf that has entered the forest by some ravine or great road; and when you perceive that the dog is about to acknowledge the scent, and that he puts his nose either to the branches or the tufts of grass, you must encourage him, for dogs are not naturally very eager after the wolf; and I have remarked (says Colonel Thornton) that they are not very eager in quest of him. Besides (continues the Colonel) the scent of the wolf does not continue more than two or three hours; and to be enabled to unkennel him, he should not have passed more than two hours; otherwise the bloodhounds will scarcely be able to hunt up to him, especially if it be on a beaten dry road.

When a huntsman perceives that his dog has got upon the scent of a wolf, he should encourage him in these terms:—*What! is he there, Boy?—Hau l' amy après, veleci y dit vrai;* and he should frequently repeat them to encourage the dog, which he must continue to follow, either by the side of the way, or in the *faux-fuyant*. Too much attention cannot be used on these occasions, because there is always reason to apprehend, lest the scent should grow too weak, and lest the bloodhound should relinquish it at the first crossway to which the wolf may have betaken himself. It is to be observed, that when the wolf passes a crossway, he always stops there for some time, either to

dung, or to make water against some bush of broom, or furze, or a tuft of grass. He then immediately scratches up a spot on the surface of the ground four feet in extent, tearing up the turf backwards with his claws. He then continues his course, and sometimes conceals himself at a considerable distance; sometimes he likewise endeavours to give his pursuers the slip, and instead of following the road takes another, and turns towards the thickest part of the wood with a view to enter it. For this purpose, he takes the first double he comes to, or some favourable passage, which happens principally when the earth is moist. It is at such times that the sportsman should be careful to train the hound to the scent, at about half the length of the line, and to encourage his bloodhound more and more. If it be still early in the day, he may follow the drag with little noise, and withdraw secretly to proceed before. He should observe, that, during this time, the hound may surprise the wolf, either by some *faux-fuyant*, or by some glade, by which he may have penetrated into the recesses of the wood, for wolves have different paces, according as they are more or less hungry. When driven by hunger, they are almost incessantly on foot, and proceed forward till they have found something to eat; but when they have glutted themselves, they frequently retire into the first thicket they come to, provided they find favourable places for their kennel, as hollies, fern, and other shrubs.

If the sportsman be at the forest on a hunting day, he will content himself with ascertaining whether the wolf has entered the thicket. He will endeavour to discover the little avenue or glade, by which he may have entered it; he will caress his bloodhound, and afterwards break the branches at the entrance of the thicket. After he has convinced himself that he has discovered the track of the wolf, he will return to the company to make his report; but if he had no other intention than to exercise his dog, or if it is a considerable time since he dislodged the wolf, he may, as soon as he has reconnoitred, return to the inclosure to discover the traces, then push on and dislodge the wolf, and follow the drag to the haunt, caressing his bloodhound, and continually using the above mentioned terms. If the bloodhound be young, his ardour will abate on approaching the haunt, because the scent of the wolf naturally inspires dogs with terror, and there are very few which

dare venture to follow him by themselves. It is therefore necessary to speak to him a good deal, in order to animate and embolden him to pursue, and he should be much caressed on the track. With regard to the haunt, I shall observe here, that wolves frequently change according to the difference of the seasons; for instance, in summer, they choose an open place among the grass, on which the sun shines a little; but in winter they repair to the recesses of the woods or thickets, among heath or fern. They seldom fix their abode beneath very high trees, excepting they find there very thick bushes, or abundance of fern or rushes.

In what manner it may be discovered that the Bloodhound has got scent of a Wolf. It is very difficult to get sight of a wolf on account of his great speed; he even scarcely leaves behind him any traces, excepting in winter in a white frost, or in summer, when there is much dust. In all other circumstances, you may be said to proceed with no great certainty; and if a person has not had long experience in the chase, he frequently takes many a step in vain. There are, however, certain signs, by means of which you may discover the object of the bloodhound's movement, and consequently distinguish whether it is a wolf or some other animal, of which the dog has got the scent. If it be a wolf, he will not fail to go and smell at the branches and the grass the wolf has touched, and will immediately proceed in pursuit of him. If the wolf makes a good impression on the ground, and the dog has any scent, you will see him pursue briskly, provided you take care to encourage him from time to time on the drag. But if the wolf passed very early, and you are not on the spot in good time, the bloodhound will lose the scent, particularly if the wolf proceeds in a right line, and is gone to a considerable distance; for a dog must have an excellent nose to discover a wolf that has passed longer than two hours and a half or three hours; and he is liable to change if there be any deer in the thicket, or if he have not been exclusively trained for wolf hunting. When the sportsman perceives, by the manner of the dog, that it is the track of a wolf which he has discovered, he must endeavour to find out whether the animal is alone or in company. They generally go in pairs; it is only in seasonable weather that he can discover their number and quality, by examining their footsteps with attention, conformably to

what has already been stated on that subject.

Manner of making a report of the Discovery of a Wolf.—It appears that it is not very easy to distinguish the track of wolves from every other animal. A sportsman should possess much experience and be capable of just observation, to be able to make an accurate report.

A report is commonly made in the following manner :

I believe I have discovered the track of one or two wolves ; or of a he and a she wolf ; or of several ; according to the indications one has observed : they came from such a thicket, or they went in quest of food towards such a village ; they killed so many deer, which I found in following them, and they afterwards repaired to such a thicket. I continued the search ; and as I imagine that their direct road lies from such a thicket, where I have reason to believe they are, to such other thicket, there is a fine opportunity for driving him into the open country, and an advantageous situation for placing greyhounds.

Manner of placing Greyhounds.—The greyhounds for the wolf are divided into three classes, the *Levriers d'Estrie*, *Levriers Compagnons*, (likewise called the flank greyhounds) and *Levriers de Teste*. There ought in general to be two leashes of each kind, each leash being composed of two or three greyhounds. The two *laisses d'estrie* are first placed by the side of the thicket, near the spot at which you imagine the wolf will break. These two leashes should be about five or six hundred paces distant from each other, more or less, according to the situation of the place. Each leash should be supported by a horseman, who should take care to conceal himself, with the dogs, on the skirts of the wood down the wind, to push the wolf when the dogs are let loose and to make him take the open country. At five or six hundred paces from the former, and about half way between the two thickets, must be posted the flank greyhounds ; the two relays of these are placed opposite to each other for the wolf to pass between them. Attention must be paid to keep these still more concealed than the former, lest the wolf should perceive them, and the valets must attend to loose them as soon as the wolf is ready to pass. The *levriers de teste* should be placed near the thicket which the wolf is expected to make for ; and when he is observed to approach pursued by the dogs, the *levriers de teste*

should then be brought forward, and let loose upon the wolf. The latter being stronger and more furious than the others, soon bring the wolf to bay ; the valets should then halloo up the bloodhounds, and hasten to the wolf as speedily as possible. As soon as the dogs hold him to bay, the valets must take care to provide themselves with short thick sticks to thrust down the wolf's throat the moment they are within reach ; because that animal, never quitting any thing that he once seizes upon, the stick which is presented to him protects the dogs from the wounds which he might otherwise inflict. The huntsmen must then employ their hunting knives, observing the precaution, when they approach to stab the wolf, to have one hand always at the point of the knife, lest they should hurt the dogs. When a favourable moment for stabbing the wolf presents itself, the knife should be thrust through his body near the shoulder.

Manner of Hunting the Wolf with Hounds. To succeed in this mode of hunting, the greyhounds must, above all things, be placed in the manner before described. You must then post on the side of the thicket at which you wish to prevent the wolves from issuing, ten or a dozen men, each provided with a rattle to be employed on the occasion. Care must be taken to station them at the distance of sixty paces from each other, more or less, according to the extent of the thicket. When every thing is ready, the leader gives the order, and the dogs are immediately taken to the *brisées* to be let loose. The whipper-in holds the dogs to the *brisées* in the thicket, to make them take the scent, and then conducts them along the track towards the spot where he supposes the wolves reside, continually encouraging them by the cries of *hala ila la tayau veleci aller*. He blows his horn from time to time, to animate them in the pursuit. The noise of the dogs will perhaps make the wolf quit his kennel long before they come up ; but sometimes he waits till they are close to him before he breaks. If the huntsman perceives him, he must then call to his dogs in these terms :—*Veclau ! veclau ! harlou ! harlou ! veleci aller !* He will then sound his horn to make them follow the traces, and then cry *Harlou ! chiens ! harlou ! veleci aller !* When the dogs have taken to the traces, they will not fail to rouse the wolf, and pursue him with eagerness ; the huntsman will then sound his horn to animate them still more.

The wolf, thus pursued, will perhaps hang cover before he breaks it, that he may obtain the advantage of the wind in his flight; but the men stationed to keep him in will make use of their rattles, the sound of which will head him, and make him go off without having the advantage of the wind. While the wolf is thus in suspense concerning the way he shall take, he is briskly pushed by the dogs, supported by the huntsman, who will incessantly keep crying—*Ha y fuit les chiens, y fuit la! ha! ha! ha!* He will then sound two blasts, and again begin hallooing—*Hou! veleci aller! veleci aller!* At length, the wolf, finding himself pressed by the dogs, the cries of the hunters, and the noise of those stationed to keep him in, resolves to escape by the place where he hears no noise, which is precisely the part next to the open country. He stops a moment at the skirts of the wood, to observe whether he can see any person, and immediately sets off to cross the plain. He is suffered to advance about one hundred paces, when the *levriers d'estrie*, and afterwards the others, are let loose upon him, on the plan already mentioned. Two horsemen at the same time ride after him, to oblige him to continue his course, as it is of great consequence that he should be kept in it; but for this, he would escape, as the attempt to run down a wolf is scarcely ever made. To command success in the latter case, you ought to be perfectly sure of your relays, that the dogs were trained exclusively to the chase of the wolf, that there were neither deer nor boars in the forest. This kind of chase would, besides, be long and fatiguing, because the wolf is rarely blown; he runs a long time, never ahead, almost constantly viewing him for six or seven hours together. The greyhounds, placed in ambush, greatly abridge this chase, and likewise render it more amusing and certain to the spectators.

As soon as a wolf is taken, he should be given up to the hounds which come up, almost immediately, because otherwise the greyhounds would attack the hounds. It is therefore advisable that they should be taken off immediately and coupled, to return and go in quest of another, for it is easy to take several wolves in one day. When this is intended to be done, each should resume his former position; as for those who are stationed to prevent the animal's escape, they must not, on any account quit their posts till they receive orders to that effect.

When the wolf is expiring, his death is announced by three loud blasts of the horn. The huntsman alights and caresses the dogs to excite them to worry him. It is the duty of the whipper-in to cut off the animal's right foot, which he presents to the commander of the company.

Manner of Chasing the She-wolf and the Cubs.—Nearly the same things are observed in the chase of the female as of the male; the same method of pursuit, and the same cries or halloos are employed: but the young wolves are chased with less precaution, and are attacked in their caverns by the dogs. As soon as the dogs have discovered them, they are seized with fear, and run from one side to the other, without ever quitting the thicket.—The whipper-in must follow and encourage the dogs by three notes from his horn, and must speak briskly to them in these terms:—*Harlou! harlou! hou veleci!* This gives the dogs fresh spirits, courage, and strength, and they rush upon the young wolves with renewed ardour. When they have overtaken them, the huntsman dispatches them with his hunting knife, always observing the precaution mentioned above, lest the dogs should sustain any injury.

If there are in the pack any young dogs, which have not before been in the chase, they might be made to begin by chasing the young wolves in company with old steady dogs. In their beginnings, they ought to be animated and encouraged by frequent caresses with the hand; and when the young wolves are taken, they should be made to approach, and to ruffle on them and pull them.

When the chase is over, a retreat is sounded, all the dogs are collected, and the wolves that have been taken are carried away.

The Blooding of the Wolf.—The blooding of the wolf differs very much from that of the stag and other beasts, which are given to the dogs on the spot. The scent of the wolf is extremely strong, and the dogs would not taste the flesh if care were not taken to disguise it. I have frequently remarked, (says Colonel Thornton) that dogs which manifested abundance of ardour in the pursuit, durst not venture to approach the animal to trample upon him when killed. Nothing but great precaution and repeated caresses can overcome their aversion to the flesh of the wolf. The following is the manner in which it is prepared:—

The wolf must first be skinned and the

entrails taken out; the head is then cut off, but the skin and ears are left upon it; the quarters are then cut off, and are baked with the body in a very hot oven. While the whole is roasting, a quantity of small pieces of bread are put into one or more tubs, into which are thrown the quarters of the wolf, cut into pieces, as soon as they come out of the oven. Upon this is then poured a large pot of boiling water, into which, while heating, have been put three or four pounds of grease, and the whole is well stirred and mixed. When the whole is soaked, it is emptied out of the tubs upon a piece of sacking made for the purpose, and stirred again, that the mixture, which is still warm, may be in a state fit to be eaten by the dogs. When every thing is ready for the blood-ing of the pack, the whipper-in receives the switches from the hands of the first valet. He presents two to the commander of the company, who gives one to the master to whom he belongs. The switches being distributed, the kennel is opened, and the huntsman sounds the tune customary on such occasions. At the same time the skin and head of the wolf are laid before the dogs, that they may become accustomed to that animal. After eating the mash, the roasted body of the wolf, to which the head has been affixed, is presented to them at the distance of thirty paces. The best way of making them eat it, is to shew it them at the point of a fork, and to animate them with words and the sound of the horn, and they will not fail to fall upon it with eagerness.

The foregoing is the French manner of preparing the animal for the winter; the method employed in summer is somewhat different. The quarters are roasted and cut in pieces as before; but, instead of water boiled with grease, two or three pailfuls of milk, into which have been put a quantity of very small pieces of bread, or rye flour, are poured over them; the whole is mixed together, and this mess is given the dogs in the same manner as the other. They eat it willingly, and it is extremely refreshing for them. The body is afterwards given them in the manner before described.

Thus much for the French mode of treatment; their hounds will not bear any comparison with those of the English breed. The former are deficient in animation, and possess a very small share of mettle; while, on the contrary, such is the blood of the well bred English hound,

that he would instantly break up any wolf on seizing it.

The breeding of hounds, as well as horses, in England, has been a primary object among sporting gentlemen, which accounts for their exclusive superiority in this country. Even with this advantage in our favour, I do not approve of the plan (says the Colonel) of deliberately taking the game, when killed, from the hounds: this operates as a check to them, and creates a shyness. Hounds, upon killing their game, should be allowed and encouraged to eat it up, while their spirits are roused and the blood of the animal is warm: but as wolf is a scent that some hounds shew a fear of, they should be encouraged, by all means, to run, kill, and devour it; and in no way should their ardour be checked, even from the unkenning to the death."

Such is the account given by Colonel Thornton of the mode of pursuing the wolf in France.

At the present moment, wolves are seldom pursued in that country, without the powerful assistance of fire arms to aid the exertions of the hounds.

The wolf hunting of America is by no means systematic. When a wolf shews himself near the cultivated parts of that country, he is pursued night and day till he is destroyed or makes his escape. The following interesting account, though tolerably well known, perhaps, on this occasion seems to be worth repeating:—

Soon after Mr. Putnam removed to Connecticut, the wolves, then very numerous, broke into his sheep fold, and killed seventy-five sheep and goats, besides wounding many lambs and kids. This havoc was made by a she wolf, which, with her annual whelps, had, for several years infested the vicinity. The cubs were commonly destroyed by the vigilance of the hunters, but the old one was too cunning to suffer any one to approach her within gun shot. Upon being closely pursued she would generally fly to the western woods, and return the next winter with another litter of whelps.

This wolf at length became such an intolerable nuisance, that Mr. Putnam entered into a combination with five of his neighbours to hunt alternately until they could destroy her. Two, by rotation, were to be constantly in pursuit. It was known, that, having lost the toes from one foot, by a steel trap, she made one track shorter than the other. By this pe-

culiarity, the pursuers recognised, in a light snow, the route of this pernicious animal. Having followed her to Connecticut River, and found she had turned back in a direct course towards Pomfret, they immediately returned, and by ten the next morning, the hounds had driven her into a den, about three miles from Mr. Putnam's house. The people soon collected, with dogs, straw, fire, and sulphur, to attack the common enemy. With this apparatus, several unsuccessful efforts were made to force her from her den. The hounds came back badly wounded and refused to return. The smoke of blazing straw had no effect; nor did the fumes of burnt brimstone, with which the cavern was filled, compel her to quit her strong hold. Wearied with such fruitless attempts (which had brought the time to ten o'clock at night) Mr. Putnam tried once more to make his dog enter, but in vain. He proposed to his negro man to go down into the cavern and shoot the wolf; but the negro declined the dangerous service. Then it was, that Mr. Putnam, angry at the disappointment, and declaring that he was ashamed to have a coward in his family, resolved himself to destroy this ferocious beast, lest she should escape through some unknown fissure of the rock. His neighbours strongly remonstrated against the perilous enterprise; but he, knowing that wild animals were intimidated by fire, and having provided several strips of birch bark, the only combustible material which he could obtain that would afford light in this deep and darksome cavern, prepared for his descent. Accordingly, divesting himself of his coat and waistcoat, and having a long rope fastened round his legs, by which he might be pulled back at a concerted signal, he entered head foremost, with the blazing torch in his hand.

The aperture to the den, on the east side of a very high ledge of rocks, was about two feet square; from thence it descended obliquely fifteen feet, then running horizontally about ten more, it ascended gradually sixteen feet towards its termination. The sides of the subterraneous cavity were composed of smooth and solid rocks, which seemed to have been separated from each other by an earthquake. It was in no part high enough for a man to raise himself upright, nor in any part more than three feet in width.

Having groped his passage to the hori-

zontal part of the den, the most terrifying darkness appeared in front of the dim circle of light afforded by his torch. He cautiously proceeded onward, came to the ascent, which he slowly mounted on his hands and knees, until he discovered the glaring eye-balls of the wolf, which was sitting at the extremity of the cavern. Startled at the sight of the fire, she gnashed her teeth, and gave a sullen growl. As soon as he had made the necessary discovery, he kicked the rope, as a signal for pulling him out. The people at the mouth of the den, who had listened with much painful anxiety, hearing the growling of the wolf, and supposing their friend to be in the most imminent danger, drew him forth with such celerity, that his shirt was stripped over his head, and his skin was severely lacerated. After he had adjusted his clothes and loaded his gun with nine buck shot, and holding a torch in one hand and his gun in the other, he descended a second time, when he drew nearer than before. The wolf, assuming a still more fierce and terrible appearance, howling, rolling her eyes, snapping her teeth, and dropping her head between her legs, was evidently on the point of springing on him. At this critical moment he levelled and fired at her head. Stunned with the shock, and suffocated with the smoke, Mr. Putnam immediately found himself drawn out of the cave; but having refreshed himself, and permitted the smoke to dissipate, he went down the third time. Being come within sight of the wolf, who appearing very passive, he applied the torch to her nose: perceiving her dead, he took hold of her ear, when kicking the rope, the people above, with no small exultation, drew them both out together.

WOLVES' TEETH. Those so called, are the teeth of the horse, enlarged by a preternatural growth, so as to lacerate the fleshy internal part of the cheek by the prominence of their ragged edges, or by the upper grinders overhanging the lower; they catch the wrinkled parts (called flaps) between them in the act of mastication, occasioning so much pain, that some horses are considerably reduced in flesh by a compulsive abstinence. With horses labouring under such infirmity or imperfection, there is no relief to be obtained, but from a proper file, and the hand of a steady operator. Some persons use the mallet and chisel.

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The female woodcock may be distinguished from the male by a narrow stripe of white along part of the exterior web of the outermost feather of the wing; the same part, on the outermost feather of the male, is elegantly and regularly spotted with black and reddish white. In the bastard wing of each sex is a small pointed narrow feather, very elastic, and used occasionally by painters as a pencil.

The woodcock, during summer, is an inhabitant of Norway, Sweden, Lapland, and other northern countries. But when winter approaches, the severe frosts of those high latitudes, by depriving it of food, force it southward to milder climates.—These birds arrive in Great Britain in flocks, sometimes as early as September, but not in great numbers till November or December. They generally take advantage of the night, being seldom seen to arrive before sunset. The period of their arrival depends much upon the prevailing winds; for, as they are unable to struggle with the boisterous gales of the northern ocean, they wait for the advantage of a favourable wind. When they have had bad weather to encounter on their passage, they are frequently so much exhausted on their arrival as to remain on the same spot many hours, almost helpless, and much reduced in flesh, by the fatigue of their voyage. In very stormy wea-

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ther, we are told, they occasionally take refuge in the rigging of vessels at sea, and that numbers are frequently lost on their passage.

Woodcocks are found much farther to the south than is generally supposed : in fact, in their periodical wanderings or migrations, these birds are actuated by hunger ; wherever their food is to be obtained, woodcocks are likely to be found, as, although they breed, for the most part, in the colder regions of the north, a warmer climate seems no way injurious to them, provided their food is to be obtained in plenty.

The greater part of them leave this country about the latter end of February or the beginning of March. They retire to the coast ; and, if the wind be favourable, set out immediately ; but, if contrary, they are often detained for some time, and thus afford good diversion to those sportsmen who reside near the shore.

Woodcocks feed on worms and insects, which they search for with their long bill, in soft ground and moist woods, flying and feeding principally towards evening, and also by moonlight.

Mr. Bowles has described the manner in which the woodcock feeds from those he saw in the Aviary at St. Ildephonso in Spain : “ There was (he observes) a fountain perpetually flowing to keep the ground moist, and trees planted for the same purpose ; fresh sod was brought to them, the richest in worms that could be found. In vain did the worms seek concealment when the woodcock was hungry ; *it discovered them by the smell* ; stuck its bill in the ground, but never higher than the nostrils, drew them out singly, and raising its bill into the air, it extended upon it the entire length of the worm, and in this way swallowed it smoothly without any action of the jaws.

This whole operation was performed in an instant, and the motion of the woodcock was so equal and imperceptible, that it seemed doing nothing ; it never missed its aim ; for this reason, and because it never plunged its bill beyond the orifice of the nostrils, I concluded that *smell* is what directs it in search of its food.”

But Mr. Bowles was mistaken. The subject is placed in a very clear and very correct point of view by the author of the Shooter's Companion ; whose observations on the subject we shall transcribe : —“ An erroneous notion generally prevails (says he) that the woodcock lives by suction ; which has probably arisen from the bird's being occasionally observed to thrust his long bill into the earth. As I am not aware (he continues) that any naturalist has truly described the mode of feeding of the woodcock, I shall relate a few particulars from actual observation. Most writers observe, that, to obtain food, the woodcock thrusts his long bill into the ground, and thus coming in contact with small worms and insects, he is enabled, by means of his semi-serrated beak, to squeeze the dirt out of his mouth, and then swallow the food. It is possible, certainly, that the woodcock may, by *boring*, obtain small worms and insects, and, after cleansing them from the dirt, swallow them ; but his general and regular mode of feeding is as follows :—having pierced the ground with his long bill, and shaken the surrounding earth, all the worms in the immediate vicinity make their way to the surface, and are greedily swal-

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lowed. If a person force a stick or spade into the ground, and move it about, he will quickly perceive the worms within reach of the motion appear at the surface, manifesting great alarm and eagerness to escape from danger : instinct, therefore, no doubt, impels the woodcock thus to procure his food.—In a severe frost, this bird is driven to shades and protected places, where the ground still remains sufficiently soft to admit of the operation of *boring*. The woodcock appears to crush the worm to a jelly as it passes up the bill, and, either from this circumstance, or from extraordinary powers of digestion, whatever the bird swallows seems to become, almost instantaneously, that exquisite delicacy of the table, known by the name of *the trail*. If a woodcock be flushed, while feeding, in the very act of swallowing a worm, and be shot at the distance of thirty yards from the spot whence he rose, the worm will be found changed into a jelly-like substance, the *trail* I have just mentioned. The woodcock is seen to feed early in the morning, and at dusk in the evening ; but this must not be understood in a literal sense. The bird is on the wing at the very dawn of the morning, and feeds as soon afterwards as he can discover food ; he will then generally continue in the place where he has fed, if sheltered, or seek the protection of some cover or hedge ; and, if undisturbed, will remain in the same situation till late in the afternoon, when he feeds again, and afterwards takes a short flight or two to his resting place for the night.”

The sight of the woodcock is indifferent in the day time, but he sees better in the dusk of the evening and by moonlight ; and it may also be remarked that woodcocks will lie better the day following a moonlight night, than when it has been preceded by a very dark one : the reason is obvious—the bird has been enabled by the light of the moon to make a plentiful repast, and the next day is lazy and unwilling to fly ; whereas, when the darkness of the night has rendered it impossible for him to satisfy the calls of hunger, he is constantly uneasy, and on the alert in search of food, which he never attempts to seek in the day time, but when necessity compels him.

M. Baillon says he has frequently remarked that there are two kinds of woodcocks :—the first that arrive are the largest, their legs are grey, slightly inclined to rose colour. The others are smaller, their plumage similar to that of the large woodcock, but their legs are blue.

But it would appear that there are three different sizes of woodcocks. Those which first make their appearance in this country are the largest ; they fly heavily, and their heads appear to be muffled, especially the under parts, with short feathers : and the general cast of their plumage appears lighter or more inclining to grey, than the smaller birds. The most numerous tribe, which arrive in November and December, are rather smaller, their heads less, the feathers smoother, and the bill somewhat shorter. Woodcocks that come about Candlemas are also small, and differ in their manner of flying ; they rise more rapidly, take longer flights, are more difficult of approach, and consequently not so easily shot.

Upon the coast of Sussex, woodcocks have been seen on their first

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arrival, in the church yards and even in the streets of Rye, in considerable numbers. At their first coming on that coast, they are commonly poor, as if wasted by their long journey, and are sometimes scurfy, though not so much as before their return in the spring; and it is remarkable that when the woodcock first arrives, the taste of its flesh is quite different from that which it afterwards assumes: it is very white, short, and tender, and seems to have little or no blood in it; but after it has been in this country a considerable time, the flesh becomes more tough, stringy, and fibrous, like that of domestic fowls. If a woodcock is shot just before his departure, he bleeds plentifully; whereas, at the beginning of winter, scarcely any blood flows from the wounds: hence it would seem, that in those countries where they have their summer residence, they subsist upon different nourishment to what they find here.

By the short flights which these birds generally take when flushed in our woods or covers, they do not appear fond of using their wings long together; yet they certainly visit us from places far distant; and first appear on the eastern coast of Scotland: they do not arrive in Breadalbane, a central part of the kingdom, until the latter end of October, or beginning of November; and seldom reach any part of the western coast of Scotland before December: there they continue in plenty until the middle of March, or perhaps later, according to the mildness or rigour of the season. In the early part of it they continue arriving in succession for a month, and in every county in Scotland, where they are found, they fly regularly from east to west.

In the same manner as woodcocks quit us, they retire from France, Germany, and Italy, making the northern and cold situations, their universal summer residence. They visit Burgundy the latter end of October, but continue there only four or five weeks; it being a dry country, they are forced away for want of sustenance by the first frost. In the winter they are found in great plenty as far south as Smyrna and Aleppo; during the same season, they are met with in Barbary, where they are called the *ass of the partridge*. We are also told that some have appeared as far south as Egypt. On the other side, they are found in Japan.

In the winter season, woodcocks abound in the neighbourhood of Athens, descending, after snow on the mountains, into the plains, and as suddenly retiring, if the weather be severe; they enter the gardens of the town in great distress rather than cross the sea, and are sometimes taken up with the hand.

In 1798, a woodcock was seen in India; it was shot at Chittagong, by a gentleman resident at Ducca. The existence of the woodcock in the East Indies had been much doubted; it was therefore exposed for the satisfaction of the curious, and was then sent to Bengal for the purpose of preservation. The author of the "Wild Sports of the East" observes, "Woodcocks are so extremely scarce, that most of the best and oldest sportsmen doubt whether one is to be found in India. However, two or three have to my knowledge been shot. Indeed, I am greatly mistaken, if I did not one day, see se-

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veral brace, as I was following the course of a small spring, through an extensive jungle of underwood, near Hazary Bang. They flitted before me for about a mile, suddenly dropping as they got out of my reach, and taking great care to dodge in such a manner through the bushes as to destroy every possibility of taking an effectual aim. It was in the month of January, when we had as sharp a frost as ever I can remember to have experienced in India."

Mr. Travers of Cornwall observes, that when at a great distance from land, where the feathered tribes are rarely seen, a bird was perceived hovering over the ship: when first discovered, it was high in the air, but gradually descended, and, after making several circuits, at length alighted on the deck, and suffered itself to be taken up by the hand—it was a woodcock.

In 1799, a couple of woodcocks, in a gale of wind, alighted upon the deck of the *Glory*, man of war, as she was cruising in the channel.

Woodcocks, like other birds, are attracted in their flight, by the glare of light; and many instances have occurred, at the Eddystone, Cromer, and Bidstone, lighthouses, of their being killed by flying against them in the night. In 1796, in the lighthouse, upon the Hill of Howth, as the man who attended was trimming his lamp, he was surprised by a violent stroke against the outside of the windows, which broke a pane of plate glass cast for the place, and more than three eighths of an inch thick. On examining the balcony, which surrounds the light, he found a woodcock, which had flown with such violence against the pane of glass, as to break his bill, head, breast bone, and both wings. The same person had often found birds which had killed themselves by flying against the windows, but never before knew the glass to be injured.

In February, 1798, a woodcock was caught in Clenston Wood, by the gamekeeper, in the rabbit nets, and preserved alive: a brass ring was put on its left leg, and it was let fly from Whatcombe House. In the following season, upon the 13th of December, the same bird was shot by Mr. Pleydell, in the same wood in which it had originally been taken. A second instance occurred in February, 1802, when a woodcock was taken alive in the same wood; and, after a tin ring, with the date, was affixed round its leg, the bird was liberated. Upon the 11th of the following December the bird was shot in the same wood where it was captured the preceding February.

A white woodcock was seen three successive winters in Penrice Wood, near the Castle of that name in Glamorganshire. It was repeatedly flushed and shot at during that time, and was at last found dead, with several others, which had perished by the severity of the winter of 1793.

Consett informs us that the inhabitants of the north of Europe, to whose woods and swamps the woodcock retires in the summer, never eat these birds, regarding their flesh as unwholesome from the circumstance of its having no crop; though from other accounts, we are given to understand that the eggs of the woodcock are considered as one of the greatest dainties.

The neighbourhood of Torrington, in Devonshire, was formerly

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remarkable for woodcocks and snipes. One person has been known to send birds of that description to London to the amount of several hundred pounds in the course of a single season.

It appears that the woodcock, though it has large prominent eyes, cannot support a glaring light, and does not see well but in the twilight. This is evinced by its manner of life, and by its motions, which are never so agile as in the dawn or at the close of the day; and so strong is this propensity to action at the morning and evening, that woodcocks confined in a room have been observed to flutter regularly at these times, while, during the day or the night, they only run on the floor without attempting to fly; and, probably, woodcocks remain still in the dark nights, but in moonlight, come abroad in quest of food. It is well known they leave their retreats on the approach of evening, and spread among the glades, always keeping the little paths, (by which means the nets are so destructive); they are then seeking the wet pasturage, ponds, or water, by the skirts of the woods, where they wash their bill and feet, which are daubed with earth in searching for worms and insects.

Though woodcocks in general leave this kingdom, yet they are occasionally known to remain and even to breed. Pennant notices this circumstance; and Mr. Latham states, that on the first of May, 1769, the gamekeeper of Horace Mann, Esq. shot a couple of woodcocks in Chellenden Wood, and also a couple the preceding day; and each of these couples had formed a nest. He likewise says that a friend of his met with a female woodcock sitting on her eggs, and the male close at hand. She was so tame, as to suffer him to touch her without rising; this was in a wood near Farningham in Kent. About the year 1781, a pair of old woodcocks, with five young ones in company, full fledged, were found.

The woodcock makes an artless nest on the ground, composed of a few dried fibres and leaves, generally against an old stump or root of a tree; the eggs, four or five in number, are larger than those of a pigeon, of a rufous grey, marked with dusky blotches; the young run as soon as they are hatched, but as they cannot immediately provide for themselves, the old birds accompany them for some time.

Woodcocks have bred occasionally in various parts of England; but whether this arose from the old birds being wounded and unable to accompany their fellows when they quit this country in the spring, or otherwise, will perhaps never be satisfactorily ascertained. Young woodcocks have been found in the High Woods near Colchester; and in the year 1801, a gentleman shooting in a wood of Mr. Wenive, of Brettenham, in Suffolk, flushed a woodcock, which he shot at and missed; the bird returned again to the spot; and a nest, with three eggs, was discovered: the nest was carefully watched, and two days after the eggs were hatched, and the young safely taken off by the old ones. A young woodcock was found the same year in Bewdley Park, Warwickshire; and also a nest, with three young woodcocks, a few miles beyond Dartford in Kent. In Birchwood, near Sharford House, in Hampshire, a woodcock's nest was found with

four eggs which were hatched, notwithstanding the visits of the curious frequently disturbed the parent bird.

The Duke of Gordon's gamekeeper, on the 15th November, 1797, shot a woodcock, the quill feathers of which were perfectly white; their coverts both greater and lesser, upon the upper side of the wing, of the same colour; on the lower side the coverts were also white, except the three outermost feathers, which, together with those upon the rest of its body, were of the usual colour.

In March, 1798, the gamekeeper of Sir John Lade, shot a woodcock completely white, in a wood in the parish of Selehurst, in Sussex; and in November of the same year, Mr. Goodyear, of Box, Somersetshire, killed one with white wings.

In November, 1804, Mr. Powell, of Okeover, Hall, Derbyshire, killed a woodcock, whose plumage was a bright chesnut, faintly mottled, except the neck and breast, which, as well as the legs and feet, were nearly white. The wing feathers were beautifully mottled with chesnut, upon a fawn-coloured ground. The head and eyes were larger than usual, the bill thicker, and of a fine brown colour. Many other instances of the seeming sport of nature in this bird might be enumerated.

WOODCOCK SHOOTING. See the article SHOOTING.

WOODPECKER. A chesnut horse, foaled in 1773, the property of Sir Charles Danvers, Bart. and sold to the Honourable Richard Vernon, of Newmarket.

Woodpecker was got by King Herod, out of Miss Ramsden.

At Newmarket first spring meeting, 1777, Woodpecker won a sweepstakes of 200gs each, (12 subscribers) 8st. 7lb; D. C. beating Lord Grosvenor's grey colt, by Twigg, out of Sod's dam: 3 to 1 on Woodpecker. In the second spring meeting, at 8st. 10lb. he received 125gs. compromise from Lord Rockingham's brother to Solon. At Ipswich, June 30, he won the king's purse of 100gs for four-year olds, 9st.; beating Sir J. Pennymann's North Pole, Lord Clermont's Hydaspes, and Lord March's Skirmish:—Even betting on Woodpecker. At Newmarket July meeting, at 8st. 7lb. he beat Lord Clermont's Hydaspes, 8st. 2lb. across the flat, 100gs:—2 to 1 on Woodpecker.

At Newmarket Craven meeting, 1778, Woodpecker won the Craven stakes of 5gs. each, for three-year olds, 8st; four-years, 8st. 9lb; five-yrs, 9st. 11lb; six-years, 9st. 5lb.; and aged, 9st. 7lb.; from the Ditch to the turn of the lands, beating Mr. Pratt's Maiden, aged; Mr. Price's Risque, 4 years old; Duke of Grafton's Skipjack, 3 years old; Mr. Parker's Buskin, four-years old; Lord Grosvenor's Laurel, six-

years old; and 23 others which were not placed; amongst whom were Mr. Shafto's Tilbury, 3 years old; Mr. Vernon's Warwick, 4 years old; Lord Clermont's Passenger, 4 years old; Lord Milsingtoun's Pink, 4 years old; Duke of Bolton's Troilus, 4 years old; Mr. Lechmere's Tremamondo, 4 years old; Mr. Gregory's Lais, 3 years old; Lord E. Bentinck's Clan Vengeance, 3 years old; Mr. Calley's Puffendorf, 3 years old; Mr. Compton's Wafer, aged; Sir H. Fetherston's Proserpine, aged; Mr. Cartaret's Jonathan, 5 years old; Mr. Smallman's Toothdrawer, 3 years old; Lord Ossory's Tuscan, 3 years old; Mr. Jennings's Dolly, 3 years old; Mr. Brand's Caprice, 4 years old; Lord Clermont's Masquerade, 6 years old.—7 to 2 against Woodpecker, 6 to 1 against Maiden, 8 to 1 against Laurel, 9 to 1 against Masquerade, and 12 to 1 against Risque. On Monday in the first spring meeting, at 8st 5lb. he received forfeit from Lord Clermont's Mistle, 4 years old, 8st. 4lb.; and Sir C. Bunbury's Comedy, 3 years old, 7st; R. C. 200gs. each, h. ft. And on Friday, he won 50l. for horses, &c. rising 5 years old, 8st. 7lb. R. C. beating Lord Abingdon's Hurlothrumbo, Lord Foley's Commissioner, and Sir J. Moore's Houghton:—5 to 2 on Woodpecker. In the second spring meeting, he won 50l. for 4 year olds, 7st. 5lb. and 5 years, 8st. 6lb; D. C. beating Lord Abingdon's Magna Charta, 4 years old;

Mr. Stapleton's Cannibal, 5 years old; Lord Clermont's Dragon, 4 years old; and Mr. Brand's Lumbago, 4 years old:—2 to 1 on Woodpecker, and 3 to 1 against Cannibal. The above were his only engagements that year.

At Newmarket Craven meeting, 1779, Woodpecker won the Craven stakes of 10gs. each, for three-year olds, 8st; four-years, 8st. 9lb.; five-years, 9st. 1lb.; six-years, 9st. 5lb.; and aged, 9st. 7lb.; from the Ditch to the turn of the lands, beating Duke of Grafton's Stormer, 4 years old; Mr. Pigott's Humbug, 5 years old; Mr. Walker's Leapfrog, 3 years old; Mr. J. Pratt's Surprise, 5 years old; Mr. Shafto's Cordial, 3 years old; Sir J. Moore's Hero, 3 years old; Lord Grosvenor's Mambrino, aged, (fell lame); Lord Derby's Harlequin, aged; Mr. Vernon's Alert, 3 years old; Lord Clermont's Cytherea, 3 years old; Mr. O'Kelly's Toothdrawer, 4 years old; Mr. Tattersall's Hammer, 3 years old; Duke of Bolton's Hang-him, 4 years old, and two others:—Even betting on Woodpecker, 3 to 1 against Mambrino, and 5 to 2 that one of them won. On Monday, in the second spring meeting, at at 8st. 7lb. he beat the Duke of Bolton's Cow, 5 years old, 7st. 8lb. the two middle miles of B. C. 100gs.:—2 to 1 on Woodpecker.

At Newmarket first spring meeting, 1780, Woodpecker, 8st. 1lb. won a sweepstakes of 200gs. each, h. ft. B. C. (eight subscribers) beating Mr. Douglas's Bourdeaux, 5 years old, 7st. 12lb.; Lord Grosvenor's Pot8o's, 6 years old, 7st. 13lb.; Lord Derby's Laburnum, 5 years old, 7st. 9lb.; and Lord Ossory's Dorimant, aged, 8st. 4lb.—6 to 5 on Pot8o's, 9 to 2 against Woodpecker, 9 to 2 against Bordeaux, 10 to 1 against Laburnum, and 10 to 1 against Dorimant. After being beat by Truth, in the Houghton meeting, he was sold to Mr. Vernon.

At Newmarket Craven meeting, 1781, Woodpecker won the Craven stakes of 10gs each, for 2 year olds, 6st. 3lb.; 3 years, 8st.; 4 years, 8st. 9lb.; 5 years, 9st. 1lb.; 6 years, 9st. 5lb.; and aged, 9st. 7lb; from the Ditch to the turn of the lands, beating Captain Bertie's Flying Gib, 4 years old; Lord Grosvenor's Whipcord, 4 years; General Smith's Girandola, 4 years; Mr. Parker's Boringdon, 4 years; Lord Derby's Fame, 5 years; Mr. Kingsman's Agricola, 2 years; Sir J. Lade's Knight-Errant, 6 years; Mr. O'Kelly's King Fergus, 5 years; Lord Clermont's Masquerade, aged; Mr. Golding's Smart,

2 years; Duke of Bolton's Greybeard, 5 years; Mr. Sulsh's bay filly, by King Herod, out of a Sister to Pacolet, 2 years; Duke of Grafton's Pandora, 4 years; Mr. Vernon's Torrent, 4 years; and Mr. Stapleton's Magog, aged, who broke down in running:—3 to 1 on Woodpecker, 4 to 1 against Girandola, and 4 to 1 against Fame. In the second October meeting, he walked over B. C. for the Clermont cup. On Monday in the first October meeting, at 8st. 7lb. he won 50l. for horses, &c.; R. C. beating Sir J. Shelley's Clandon, 5 years old, 8st.; and Duke of Grafton's Boxer, 5 years, 8st.:—3 to 1 on Woodpecker. On Saturday, at 8st. 10½lb. he beat Mr. Fox's Spitfire, 4 years old, 7st. 8½lb. R. M. 200gs.:—6 to 4 on Woodpecker. On Wednesday, in the second October meeting, he won 140gs. 8st. 7lb. each, B. C. beating Lord Grosvenor's Pot8o's, aged:—7 to 4 on Woodpecker. And on Friday, at 9st. 2lb. he won a subscription of 5gs. each, (13 subscribers) for horses, &c. B. C. beating Lord Clermont's Hollandoise, 6 years old, 8st. 13lb; and Duke of Grafton's Boxer, 5 years, 8st. 6lb.:—5 to 4 on Woodpecker. This was the last time of his running.

Woodpecker was beat seven times, viz. once by Fleacatcher; once by Dorimant; once by Fieri-Facias, to whom he allowed, 3st. 7lb.; once by Bourdeaux, once by Truth; and twice by Pot8o's. He paid four forfeits, viz. in the Grosvenor's stakes, won by Prince; once each to Dictator, Guildford, and Mr. Pigott's Nutteracker.

Woodpecker was a stallion at Rushbrook, near Bury St. Edmund's, Suffolk.—In 1782, at 3gs. and 5gs.; in 1783, 1784, and 1785, at 3gs. and 10s. 6d.; in 1786, at Petworth, Sussex, at 10gs. and 5s.; in 1787, at Rushbrook, at 10gs. and 10s. 6d.; in 1788, at Petworth, at 10gs. and 10s. 6d.; in 1789, and 1790, he was not advertised; in 1791, at 20gs. and one guinea; in 1792, at 30gs. and 1 guinea; in 1793, at 20gs. and one guinea; and afterwards at 12gs. and one guinea.

Woodpecker died in the Earl of Egremont's stud, at Petworth, Sussex, the latter end of the year 1798, aged 25.

WORMING DOGS. It would perhaps be difficult to discover the inventor of this ridiculous operation. It will not have the effect erroneously attributed to it, namely of rendering the animal incapable of biting when labouring under paroxysms of hydrophobia. How could it ever be supposed that extracting a sinew

which runs longitudinally under a dog's tongue, would have the above effect, is a matter of surprise!—it is a foolish idea, the offspring of ignorance: it is putting a generous animal to pain, where no possible benefit could be reasonably expected.

WORMS. According to the veterinary notions of the present day, worms are, generally speaking, not considered as injurious to the health of the horse. In order to place this interesting subject in as clear a view as possible, I shall have recourse, in the first place, to the lucid and scientific Lectures of Mr. Percival, which embrace also the ideas of Mr. Bracey Clark on the same subject, and afterwards give the notions of preceding writers, as the matter is, after all, but very imperfectly understood.

Worms (says the eloquent Percival) by presumptuous dabblers in veterinary practice, have ever been, and are still, regarded as destructive vermin, a notion to which we may refer those vulgar prejudices of the present day that associate an utter dread and abhorrence with the idea of worms *crawling alive* within an animal's bowels; which prejudices have in no few fatal cases been made the ready instruments of the consciously ignorant farrier in repressing the inquisitiveness of his employers, and putting an end to all further inquiry after the cause of his unfortunate patient's death.

Four kinds of worms have been seen within the bowels of horses: viz. the *ætrus*, or bot; the *lumbricus teres*, or long white worm; the *ascaris*, or small thread-like worm; and the *tænia*, or tape worm.

Bots.—The bot, an animal whose *nidus*, or natural habitation, appears to be the stomach, is so well known in its general characters to every one who possesses any acquaintance with horses, that I do not conceive a description of it in this place at all necessary.—Its natural history is interesting. Mr. Bracey Clarke has exposed the erroneous view that was formerly taken of the bot in regarding it as a worm; he has demonstrated that it is the *larva*, or caterpillar, of a particular species of the genus *æstrus*, or gad-fly. He has particularized three species of bots; which, however, are rather distinguished from one another by incidents connected with their natural history, than by any specific corporal characters. The first is the *æstrus equi*, or large spotted horse bot; the second is the *æstrus hemorrhoidalis*, or fundament bot; the third Mr. Clarke has named the *æstrus veterinus*, or red bot.

Speaking of *æstrus equi*, Mr. C. says, “as it is necessary to break into the circle of its history at some point, I shall begin with an account of the egg, and its deposition upon the skin of the legs of the horse, which is done in the following remarkable manner:—when the female has been impregnated and the egg sufficiently matured, she seeks among the horses a subject for her purpose, and, approaching him on the wing, she carries her body nearly upright in the air, and her tail, which is lengthened for the purpose, curved inwards and upwards: in this way she approaches the part where she designs to deposit the egg; and, suspending herself for a few seconds before it, suddenly darts upon it, and leaves the egg adhering to the hair: she hardly appears to settle, but merely touches the hair with the egg held out on the projected part of the abdomen. The egg is made to adhere by means of a glutinous liquor secreted with it. She then leaves the horse at a small distance, and prepares a second egg, and, poising herself before the part, deposits it in the same way. The liquor dries, and the egg becomes firmly glued to the hair: this is repeated by these flies till four or 500 eggs are sometimes placed on a horse.” The parts chosen for the deposition of these eggs are those liable to be licked by the tongue; the inside of the knee is a favourite spot, and next to this the side and back part of the shoulder, and less frequently the extreme ends of the hair of the mane. The common notion is, that the ova are licked off the skin, and thence carried into the stomach; but Mr. C. observes—“I do not find this to be the case, or at least only by accident; for when they have remained on the hair four or five days, they become ripe, after which time the slightest application of moisture and warmth is sufficient to bring forth in an instant, the latent larva. At this time, if the tongue of the horse touches the eggs its *operculum* is thrown open, and a small active worm is produced, which readily adheres to the moist surface of the tongue, and is from thence conveyed with the food to the stomach.” And it appears that the irritations of the common flies is the instigation of the animal's licking himself; not, however, that this is absolutely necessary, for “a horse that has no ova deposited upon him may yet have bots, by performing the friendly office of licking another horse that has.” The larva or worm being hatched and lodged in the stomach, immediately clings, by means of its *tenticula*—(two dark brown hooks, between which is

its mouth) to the cuticular coat, which they pierce, though they never insinuate their points into the muscular or sensitive tunic beyond it; in this manner, so pertinaciously does the bot adhere, that in our attempts to unhitch it, it will frequently suffer its hooks to be broken, or even its body severed, rather than quit its hold. Now and then, but I believe very rarely, they are found hooked in the villous coat; these, however, are nothing more than stragglers, bots probably that had on their arrival in the stomach, been hastily carried with the aliment into its vascular part, before they had the power of fixing their hooks in the cuticular. Here then is a fact which ought to stifle our apprehensions about the pain and irritation that these animals are said to occasion: how they can cause either when they are fastened to an insensible part, to a part as devoid of feeling in itself as the very hoofs are, I have yet to learn. The bot, thus transported about the latter part of the summer, while horses are at grass, remains in the stomach through the winter, until the end of the ensuing spring, when, being at the consummation of this stage or form of existence, it spontaneously disengages itself, and passes with the chymous matter into the intestinal canal; where its stay probably is but short, since it now lies loose amongst the alimentary matters, and is eventually cast out from its animal abode with the dung. Now, it has long been a question, and one which is not yet set at rest, on what these worms subsist in the stomach. Mr. Clark supposes their food to be chyme, which (he says) being *nearly pure aliment*, affords probably but little excrementitious residue. I do not, however, believe that to be nearly pure aliment—what we understand by chyle, is not found in the stomach, much less in the cuticular part of it, where, as far as I have observed, the food itself remains unchanged even into chyme. For myself, I feel inclined to think that the mucus, an abundance of which is deposited upon the surface of the alimentary mass, to sheath the stomach from mechanical irritation, constitutes their food, which probably possesses little or no excrementitious matter, since it is itself re-absorbed in many parts of the body; and what favours this opinion is, that there are bots in the sinuses of the head, in the skin, &c. of cattle, which can have no other sustenance than the secretions of those parts; and that worms in the intestines of animals are nourished in this way, is rendered highly probable by the existence of the ascaris

in the colon and rectum guts, that contain little or nothing else but what is innutritious.

It is about the month of June or July, that the bots, having left the gastric region and been transported with the aliment through the windings of the intestinal tube, are discharged with the fæces; and at this period it is, that people discern that their horses (particularly those which have been at grass the preceding autumn) have worms; to get rid of which, vermifuges come all at once into general requisition; but if these well meaning people would only have a little patience, these imaginary plagues would soon quit the bowels of their horses of their own accord. The larva being ejected, lies not long exposed upon the ground, or concealed in the dung, but quickly dries up, and shrinks into the state of *chrysalis* or grub, in which torpid condition it continues for a few weeks; at the expiration of this time, the superfluous moisture being removed, and the parts of the future insect being hardened by drying, it bursts from its confinement, and the fly appears making its exit at the small end. On quitting their shell, they, in a few hours, take wing and then seek their mates.

The *fundament bot*, or *æstrus hemorrhoidalis*, chooses the lip of the horse for depositing its eggs, which is very distressing to the animal from the excessive titillation it occasions; for he immediately after rubs his mouth against the ground, his fore legs, or sometimes against a tree, with great emotion; till the animal at length, finding this mode of defence insufficient, enraged quits the spot, and endeavours to avoid it by galloping away to a distant part of the field; and if the fly, still continues to follow and tease him, his last resource is in the water, where the *æstrus* is never observed to pursue him. The larva or grub of this species inhabits the stomach as the former, generally adhering to the white lining, and is disposed promiscuously in dense clusters after the same manner; they may, however, be distinguished from them by being in general smaller, longer in proportion to the bulk and rounder. These bots quit their habitation in the same season of the year, but are rendered remarkable by their sticking more or less within the verge or opening of the anus, adhering to its soft lining, and producing considerable irritation. Its change to the *chrysalis* state, and further transformation into that of insects, which happens in about two months, are similar to what befalls the *æstrus* equi.

Of the *æstrus veterinus*, or red bot, so designated by Mr. Clark, in preference to retaining the epithet *nasalis*, which conveys a false notion of its habitation, the same historical detail does not appear to be made out. The mode of this insect depositing its eggs or nits is at present unknown. They perhaps deposit them about the lips or legs, like the former species. The larva of this species is also not certainly known. That it inhabits the stomach, in the same manner as the two former species, there can be little doubt.

Mr. Clark is decidedly of opinion that bots are no way injurious to the horse; though he makes some observations on the most effectual mode of destroying them. At the natural period of their transformation (says he) they come away readily enough of themselves; and if it happens at the time that any medicine has been administered, it is considered as proof sufficient of its efficacy, and mistaken for the consequences of it:—so easy is it to draw wrong conclusions. Neither opium nor tobacco, given for several days, have any effect upon them. We can, it is true, force the poison down the horse's throat, but we cannot afterwards get it into the throat of the worm, who is placed in his own element, and can refuse the food that does not suit him. The wisest measure for securing horses from their effects is to prevent their propagation or access, and their habits afford us an effectual mode of doing this. The eggs of the *æstrus equi*, which are very conspicuous on the knee, the mane, and the sides of the horse, may be washed off by a brush and warm water, or still more effectually removed by a pair of scissors. The same may be done for the hemorrhoidals, they may be thus removed from the lips and beard.

The other species being smaller, more rare, and probably less troublesome, require therefore less our consideration.

In respect to the hemorrhoidals also, where horses have been much out at grass the preceding year, they should, occasionally, in the warm months of the next summer, be examined for them, when they will be found, as already stated, hanging to the extremity of the rectum, and should be removed by the fingers. The destruction of a single one at this season of the year, is not only the death of an individual and its effects, but the almost certain destruction of a numerous progeny; it is also useful in preventing the irritation

which the spines of the bot occasion in the anus, which irritation becomes very distressing to the animal if he is used on the road, occasions him to move awkwardly, wriggle himself about, and to be sluggish; and, though beaten severely, he soon relapses into his awkward manner of going; which, as this happens generally in warm weather, is most commonly attributed to mere laziness.

It has been conjectured that bots might prove serviceable to the animal by aiding the cuticular coat in the trituration of food; but I do not think that any proof or incontrovertible argument has been added in support of such a power being possessed by the stomach of the horse.

That nature should have created an animal, and designed it as an inhabitant of the stomach of another animal, without some good, (though quite unknown) is, I think, highly improbable and irreconcilable with other beautiful and more readily-explained operations. Taking it for granted that bots do good rather than hurt, surely we need not be solicitous about removing them; for, though we cannot demonstrate their beneficial influence, we can, from all the circumstances we have a knowledge of regarding them, boldly assert "*that they are in nowise injurious.*" Yet we cannot persuade the world to entertain the same opinion.

"In all works on Farriery (Mr. Percival observes) you will find some recipe extolled as a vermifuge; which, unless it contain a purgative ingredient, you may at once expunge as inefficacious; for we know of no medicine that has the power of destroying bots in the stomach; and if we did, we are not sure that, even when dead, they would be detached from its cuticular coat; though if they were in its vascular part, they would be subjected to the action of the gastric juice. No medicine, therefore, not even a purge, can operate as a vermifuge but at a certain season of the year; when, if you will but suspend its exhibition for a while, the worms will all readily pass away without your assistance. But, if we must subscribe something as a vermifuge, we have no other resource than a common purge: a dose of aloes is all that is required, though it is usual to combine it with calomel, which will certainly render it more active, and herein resides all the (supposed) specific virtue of the latter medicine as a vermifuge."

The long white worm, or *lumbicus teres* is now and then formed in the bowels of the horse after death; though it seldom

or never happens, unless perchance one be voided, that we have any knowledge of its existence during life. This worm is white, round, sharp pointed, several inches in length, and in form resembling the common earth worm. They inhabit the small intestines, are but seldom seen in the large guts unless medicine have been given, and never, I believe, have been detected in the stomach. Strange accounts have appeared of the injuries sustained from the presence of these worms in the bowels, but so inconclusive are they, in consequence of the remedies employed having been of a more destructive tendency than the worms themselves, that it is utterly impossible to determine what importance should be attached to them. Apprehensions have been entertained by some of their *starving the horse to death*, by a consumption of chyle: we have no more reason, however, to believe that these worms feed on chyle, than we have of the bots being nourished by chyme: on the contrary, I should argue, on nearly the same grounds, that the aliment might be the intestinal secretion.

I am not aware of any symptoms on which we can rely that indicate the presence of these worms: emaciation, inordinate appetite, symptoms of pain in the belly like those of gripes, unhealthy appearance of coat, a little exsiccated mucus appearing about the verge of the anus, are said to be signs of their existence; but I should advise him who values a correct opinion to withhold it until one or more of these worms shall have been discovered in the dung: and it commonly happens that a solitary one, of considerable length, makes its appearance.

Should any be observed in the fæces, we may, with a view of expelling others, administer an aloetic purge, either with or without calomel; though it is by no means certain that this will have the desired effect.

The Ascaris.—The ascarides, formed in the bowels of the horse, are small needle-like worms, in shape very much resembling those of the same name that infest the human intestines; they are longer, however, and of a dark colour, approaching to black. In the large guts, mostly in the cœcum, they are now and then discovered in prodigious quantities, to which the farrier does not fail confidently to assign the cause of the horse's death. Those however who have carefully inspected such bowels after death, have, I believe, but in very few instances met

with any erosion or injury that could be attributed to these worms. We can with little more certainty venture an opinion on their presence than we can on that of the *lumbrici*, or long white worms, unless we observe some of them in the dung; though they may and do sometimes occasion so much irritation about the rectum, that the animal, from experienciug a troublesome *tenesmus*, ejects a little mucous secretion, from time to time, which, adhering to the anus, and becoming exsiccated, is converted into a whitish powder.

Should any symptoms of pain or irritation make their appearance, which there is reason to believe arose from the existence of worms, I would administer a full dose of aloes, or of aloes conjoined with calomel; or, if this failed to cause their expulsion in great numbers, I would have recourse to oil of turpentine, in large doses, in the form of enema, (clyster) and follow up its exhibition with either of the purges just mentioned. In general, about a week should elapse between the administration of each dose of the purgative medicine; for it will be necessary, in most cases, to repeat it once, if not twice.

The *tænia*, or tape worm has been seen in the intestines of the horse. One case only, in which *tæniæ* were found after the death, is recorded in the *Sick Journals* of the Royal Horse Infirmary. Professor Peall makes this remark on it:—"The tape worm is, in fact, so very rarely seen, that, but from the circumstances of the possibility of its being met with, it would scarcely deserve to be noticed as an enemy to the horse."

"There is nothing (says Mr. Denny) so destructive to the health and appearance of a horse as worms. When they have obtained a settlement in the intestines, neither the labour of the groom, nor the liberality of the master, will prove of any avail towards improving the animal's condition; for, as fast as the chyle is formed from the aliment, which ought to be converted into blood, these numerous guests first satiate their craving appetites, and leave but a scanty supply for the exhausted system of the horse: so that a double allowance of corn would not preserve a healthy state; because the digestive organs cannot exert an extraordinary power for any length of time, without producing such a state of debility as to render them incapable of performing, afterwards, their proper office.

The most common kinds are the following: *bots*, which many young horses

are subject to in the spring: those that resemble earth worms, and which, by physicians, are called *terets*, or *rotundi*: those that are about the size of the largest sewing-needles, with flat heads, called *ascarides*: that species of worm called *tænia*, or *tape-worm*. Whatever variety be observable in these different kinds, except the last, it consists chiefly in the difference of their size and colour, which are only accidental. We shall speak of these in their order.

Bots, that are found in the stomachs of horses, and are sometimes the cause of convulsions, appear to be of the same kind with those in the rectum, being only somewhat larger and of a deeper red colour. They are exactly the same in shape and figure, both having little sharp prickly feet along the sides of their bellies, like the feet of hog-lice, which seem to be of use to fasten them more securely to the part where they are found, and from whence they draw their nourishment till they come to maturity.

The *teretes* are of the same kind with those we often see voided by children. They resemble common earth worms in many respects, only that they are sharper at both ends, are more callous towards the middle, and do not so easily contract or dilate themselves. In children, and in grown persons too, they seldom exceed six inches in length; but Gibson says, he has known them to be passed by horses of a size larger than a man's finger, and about eighteen inches long, and some of them, when slit open, full of eggs. These, notwithstanding, are seldom hurtful to horses, further than as they hinder them from thriving.

The small worms like needles resemble those of the human body called *ascarides*; some of them are white, and some of an azure colour, with flattish heads. These are very troublesome and hard to be expelled, and they expose horses, more than any of the other kinds, to gripes, and other uneasy affections of the intestines.

As to the cause of worms in horses, it is imagined that, as in the human subject, some constitutions are more inclinable to breed worms than others. Gibson says, the most usual cause of worms is foul or high feeding, which occasion crudities and slimy indigested matter in the stomach and bowels (especially in horses that have been pampered for sale) forming a proper nidus for worms. This, indeed, may be the case, but the primary

cause of worms is that which occasions these crudities, to wit, a want of energy in the functions of the stomach and bowels, as worms are never found in animals perfectly healthy in these respects.

"The signs of worms in horses (says Gibson) are various, according to their different kinds. The bots that many horses are troubled with in the beginning of summer, are always found sticking to the rectum, and are often thrust out with the dung, along with a yellowish coloured matter like melted sulphur. They are no way dangerous there, but they are apt to make a horse restless and uneasy, and rub his breech against the posts. The season of their coming is usually in the months of May and June, after which they are seldom to be seen, and rarely continue in any horse above a fortnight or three weeks. Those that take possession of the membranous portion of the stomach, are extremely dangerous in causing convulsions, and are seldom discovered by any previous signs, before they bring a horse into violent agonies."

The *teretes* or earth-worms give little disturbance to a horse, and would hardly be discovered, unless they were seen now and then to come away with the dung. Frequently, horses void one or two, and no more; and sometimes they will void pretty large quantities of the young brood, not much larger than the *ascarides*, only of a red colour, and not white, as the latter generally are. They are most usual in autumn, or the beginning of winter, though a horse shall now and then void one or two of these at other times of the year.

The *ascarides*, or small needle-like worms, are very troublesome to horses, breed at all times of the year, and often when one breed is destroyed another succeeds. These are not at all dangerous; yet when a horse is pestered in this sort of way, though he will go through his business tolerably well, and sometimes feed heartily, yet he always looks lean and jaded; his hair stares as if he was sickly, and nothing that he eats makes him thrive. That he feels pain too is plain, for he often strikes his hind feet against his belly, which shews where his grievance lies, and is sometimes griped, but yet without the very violent symptoms that attend a colic or strangury. He never rolls or tumbles, but only shews uneasiness, and generally lays himself down quietly on his belly for a little while, and then gets up and begins to feed;

but the surest sign is, when a horse voids these worms with his dung.

With regard to the cure, if a horse be troubled with bots, Gibson says, he may be relieved without much expense or trouble, only by giving him a spoonful of savin, cut very small, once or twice every day, in oats or bran moistened; and if three or four cloves of chopped garlick be mixed with the savin, it will do better, for garlick is of great service in these complaints. Horses that are troubled with bots, ought to be purged with calomel and aloetic purges before the weather grows too hot; and if they be kept to a clean diet after this, it will be a great chance if ever they are troubled with them any more. As the bots generally happen about the grass season, those horses that are turned out to grass often get rid of them there, by the first fortnight's purging; and therefore those that have the convenience of a good pasture for their horses, need not be very solicitous about giving them medicines.

The earth-worms, which some writers call *teretes*, *rotundi*, or *lumbrici*, are also best conquered by calomel and occasional aloetic purges, for worms often come away in purging, when, till then, it has not been known that the horse was troubled with them; and it has been observed, after these have been voided, that the animal has thriven better, grown more lively, and shewn more alertness at his business. There can scarcely be a better plan than is supplied in the following formulæ recommended by Mr. Denny:

Take of Calomel, one drachm;
Aniseeds, in powder, half an ounce;
Treacle, enough to make a ball.

This is to be given in the evening; and the next morning the following is to be administered:

Take of Succotrine aloes, in powder, one ounce;
Ginger, in powder, two drs.;
Treacle, enough to make a ball.

The foregoing bolus and purgative ball must be repeated, within an interval of nine days, until the horse has taken three doses. Then we are advised to give the following alterative powder, daily, for about a month. This process does not require any change of diet, or involve any hazard from the effects of cold:

Take of Ethiop's mineral,
Crude antimony, prepared,

Aniseeds, in powder, half an ounce.

Mix them.

The treatment of the horse during this course of worm medicines, is that in common cases of physic.

Some prefer giving Barbadoes aloes for the removal of worms, thinking it the more efficacious, because its operation is very rough. Gibson says, it may be given to hackneys and other horses of small value; but he never found it more efficacious than the succotrine, at the same time that it exposes a horse more to gripes and other dangerous disorders, unless it be properly managed. The following he gives as a cheap purge of this kind, and well corrected:

Take of Barbadoes aloes, one ounce;
Salt of tartar, two drachms;
Ginger, grated, a drachm and a half;
Oil of amber, a middling spoonful;
Syrup of buckthorn, sufficient to make a ball.

To this we see no objection, except as to the quantity of aloes, which would be too considerable even of a milder sort. Yet most of the common farriers do nothing more than work an ounce of the coarsest aloes into a ball before a warm fire, and when they have dipped it in oil, give it without any other preparation. But this sort of treatment is unfit for any horse that we set a value upon.

The kind of worms called *ascarides* sometimes come away from a horse in great numbers with the help of a purge, and some get quite clear of them with purges only. But this does not very often happen, for the horses that breed *ascarides*, above all others, are subject to slime and foulness in their intestines. In the human body, *ascarides* are thought to be bred in the rectum, near the fundament, but in horses, no other kind than bots usually adhere to that gut. On the contrary, these worms in them seem to be lodged about the beginning of the small intestines near the stomach, where they feed on the alimentary parts of the chyle. The bots, in a horse, are often seen sticking near the sphincter ani, and are continually dropping away with the dung. But the *ascarides* are seldom seen there, except when the animal has had a purge given him, or when he falls into a natural purging, which often happens from the irritation of the bowels, and then they come away in very great numbers, ac-

complicated with much slime and mucus. Bots seldom alter a horse's looks, but these not only make a horse grow lean and look emaciated, but on opening his mouth one may perceive a more than ordinary languid whiteness, and a sickly smell, instead of that liveliness of colour that is always perceivable in the mouth of a sound and vigorous horse. So that, whatever be the primary cause, these worms seem in a great measure to proceed from a vitiated appetite and a weak digestion, which renders them the more difficult to be removed; for which purpose, recourse must be first had to the foregoing remedies, and after them, such medicines as are proper to strengthen the stomach, promote digestion, and give tone to the solids.

Gibson's treatment of a horse that is subject to these worms is the following:

Take of Calomel, prepared, two drs.;

Diapente, half an ounce;

Make these into a ball, with a sufficient quantity of conserve of roses, and give it in the morning, keeping the horse from meat an hour or two before and after the dose.

The next morning, administer a moderate aloetic purge, taking great care to keep the horse from wet, or from any thing that may expose him to take cold. The above calomel ball, and the purge, may be repeated in six or eight days; and again in six or eight days more. Or the following mercurial purge may be given, which will be less troublesome and no less efficacious:

Take of Crude quicksilver, two drs.;

Venice turpentine, half an oz.

Rub the quicksilver with the turpentine in a mortar till no particle of the former appear; then add,

Oil of savin, thirty or forty drops;

Succotrine aloes, in powder, half an ounce;

Ginger, grated, one drachm;

Syrup of buckthorn, enough to make it up into a ball.

Let one of these mercurial purges be given in the foregoing manner, viz. one in six or eight days, with all the same precautions. It will work mildly, and with little or no griping or sickness.

Another mercurial purge, which Gibson says is proper to destroy worms and to cleanse the first passages, is the following:

Take of Diagridium,

Calx of antimony,

Calomel, of each two drachms;

Succotrine aloes, six drachms;

Oil of savin, cloves, or aniseeds, thirty or forty drops.

Syrup of buckthorn, enough to form the ball.

To be given as the preceding.

When a horse has gone through a course of these mercurial purges, the author advises the following drink to be given two or three times a-week, or till the horse begins to thrive and look healthy:

Take of Rue,

Chamomile flowers,

Horehound, of each a handful;

Galangals, bruised in a mortar, three drachms;

Liquorice root, sliced, an oz.

Boil these in a quart or three pints of forge-water fifteen or sixteen minutes, in a covered vessel, and keep it covered till cold, then strain it through a piece of coarse canvas, and give it in the morning upon an empty stomach.

"Some (says Gibson) have a great opinion of *powder of tin* as an infallible cure for worms. But it is very troublesome to make, and perhaps not so infallible as some have imagined. Tin is prepared by melting down any quantity of it in a crucible, pouring it hot into a wooden bowl, and rolling it round till part of it is turned to a greyish powder. Then melting down the remaining part, and rolling it again, continuing this operation till all that can be reduced to powder is obtained from it. This may be given to half an ounce or six drachms."

We should rather advise a dose of three or four ounces; half an ounce to an ounce being commonly given to children.

Most of the preparations of antimony (continues the author) are efficacious for destroying worms: sulphur is also good in all such cases; and even crude antimony in fine powder, given with equal parts of sulphur, often succeeds, viz. an ounce in the morning and another at night: liver of antimony, *crocus metallorum*, or *stibium*, has also the same effect. Ethiop's mineral, or the *mercurius alkalisatus*, viz. two drachms of the latter, or half an ounce of the former, made into a ball, with conserve of roses, or incorporated with a sufficient quantity of any cordial ball, and given twice or three times a-week, for a fortnight, is of great efficacy. Powders made of cinnabar of

antimony, with gum guaiacum, as in the farcy, will effectually destroy worms after purging and other necessary evacuations, and be no hindrance to a horse's business. But if a horse be of a weakly constitution, and a bad feeder, we would above all things recommend the last-mentioned bitter draught to be also exhibited, which will promote a good appetite and help his digestion. When worms seem to have been bred by high feeding, want of air and due exercise, or from unwholesome food, they may be often removed by a contrary regimen, without any medicines, or at least with the help of a very few; sometimes with rue and garlic, savin, tansy, and other vegetable remedies. But when worms are the consequence of weak bowels, or owe their production to any fault in the constitution, the cure will then be difficult and tedious, and may require an alteration or change of the whole habit of the body before that can be effected."

Before we close this article we must not fail to notice a kind of worms which are frequently fatal to the gallinaceous tribe. A curious account of these is given by Mr. Weinsenthal in the Medical and Physical Journal. The inconvenience produced by these creatures is at first but slight; however, it gradually becomes more and more oppressive, until it ultimately destroys. Very few, indeed, recover; they languish, grow dispirited, droop and die. It is found, on dissection, that these symptoms are occasioned by worms in the trachea. The author says he has seen the whole of it completely filled with these worms, and has been astonished at the animal's being capable of respiration.

No effectual remedy, it seems, is known against these destructive animals. They have indeed been drawn out of the trachea by means of a feather, stripped from near its end, which is passed into the larynx and twisted round till it engages one or two of the worms, which are extracted, but without any relief to the animal.

WORMS IN DOGS. See DISEASES OF DOGS.

WOUNDS. A wound is a solution of continuity in the soft parts of an animal body, made by a hard or sharp instrument. But it may be observed, that obtuse instruments wound, and sharp ones cut into the bones. Horses and other cattle are exposed to various accidents of this kind, and as the treatment required is as nearly as possible, that which is re-

quired in wounds of the human body, we shall draw our account of wounds from the best surgical writers.

Wounds that are superficial, when cleaned from the blood, &c. are perceptible to the sight; but when they are too deep to be seen into, it is requisite to examine them either with the finger or with a probe. Where the wound is too small for the finger, a bougie is better than a metal probe, on account of its flexibility, especially where the wound takes a winding direction. In examining a wound, we should know the attitude of the patient when he received it, the kind of weapon, how far it penetrated, how it was directed, with what force the blow was given, &c. It should also be observed, what kind of fluid discharges do, or did flow from the wound. The knowledge of these, with the knowledge of the animal frame, the use, &c. of each part, enable us to judge rightly of the nature of the wound, its consequences, and method of cure.

The danger from a wound will be as the size of the vessels that are divided, and the importance of the injured part with respect to life. The nearer a wound is to a vital part, the more dangerous it is. Wounds in the joints are healed with difficulty; so are those that are situated in any part subject to constant motion, as in the lungs or belly. The attending symptoms render a wound more or less dangerous. Dividing a principal artery in a limb, endangers mortification; a principal nerve, insensibility, and an atrophy. Separation of a tendon destroys as much motion as depends on the muscle connected with it. A wound in the medulla spinalis causes death, or a mortification in the lower parts. An immoderate suppuration in a deep wound, by absorption, may cause a hectic fever, and consume the patient in a marasmus. Great loss of blood endangers a dropsy. A wound in the breast and lungs, when healed, may be the occasion of a phthisis pulmonalis; and in any other considerable organ, an ulcer may remain, and prove the source of a hectic fever, or of a consumption; but great caution is necessary in determining the prognostics of wounds, particularly those which penetrate into the breast or belly, on account of the different situation of the viscera, of which we have no means of judging accurately in brutes.

The different states of a wound are included under those of digestion, or the

discharge of matter ; incarnation, or filling up with new flesh ; and cicatrization, or skinning over.

As for the treatment of wounds, the following particulars should be observed. When the extraneous bodies are extracted, if it can be done prudently, the hæmorrhage suppressed, all morbid tension in the wounded part removed, and the lips of the wound, where this is required, brought properly together, the dressings may be pledgets of soft lint covered with one of tow, spread with some digestive ointment, and large enough to cover the whole ; these may be secured by means of such bandages as the situation of the wound best admits of : the first dressings usually remain three or four days, or until the discharge of matter renders the separation of them easy. After the first are removed, the dressing may be repeated every twelve or twenty-four hours, according as the discharge is more or less abundant or acrid. If, after the first dressing, a warm digestive is required, add to the ung. resinæ flav. a little of the ol. terebinth. or bals. capaivi. These applications need not be warmed, except when very cold ; after spreading the pledget, its surface may be just warmed by holding before the fire : each time that the surface of the wound is cleansed, it should be performed by dabbing it with soft lint, and not wiping it, lest the tender granulations should be destroyed. The surface of the wound should not be made quite dry ; it is better for being left somewhat moist, for thus the digestion is less interrupted.

Most writers have observed, that the principal interruption to the healing of a wound, made with a sharp instrument, is the fungus. This, however, may be suppressed by dry tow or lint, and a proper compress upon it : or if it advance above the surface of the skin, we need only to touch its edges with some escharotic, as blue vitriol. But it sometimes happens that an obstruction to healing is the flabbiness of a wound, which is generally removed by dabbing it, at each dressing, with lime water and tincture of myrrh, or with a solution of corrosive sublimate. Thus, if an ill constitution or bad habit of the body is no impediment, wounds on the exterior parts are generally soon healed.

When the wound is filled up with flesh, powdering the surface with prepared *lapis calaminaris* will usually effect the last intention of cure, *i. e.* the *cicatrizing* of the wound.

There are many accidents which occasionally are attendant on wounds in one stage or other, such as fever, or inflammation, &c. the management of which will be learned from what is already said under the different articles in which they are noticed.

When a small artery is wounded, if it be quite divided it retracts, and the hæmorrhage is soon spontaneously restrained ; if it is punctured, or partially divided, if it can conveniently be come at, it may be wholly divided, or the wound enlarged, and then the artery may be tied, if proper pressure proves ineffectual. When a large artery is punctured or divided, it must be taken up and secured with a needle and ligature.

Wounds sometimes penetrate the cavity of the breast and belly, and sometimes injure one or more of the viscera ; the first are known by the probe, the latter by the discharge that issues from them ; if the symptoms attending a wound that penetrates into the cavity of the breast or belly, are favourable, and there is no discharge from any of the viscera, we may conclude that the viscera are unhurt ; in which case, after excluding the air that may have rushed into these cavities, we may treat them as simple wounds. If any of the viscera have protruded and are unhurt, return them with all speed ; but if wounded, use the glover's suture, leaving three or four inches of the ligature out of the wound. If the protruded viscera have been exposed to the air, it may be necessary, before the return of them, to use a fomentation of warm milk and water, or some thin starch. In all these cases flannel is the best bandage, because it gives way and retreats as the breath requires.

Wounds in the principal internal blood-vessels are all deemed mortal ; but blood is sometimes discharged from smaller vessels into the cavity of the breast or of the belly ; if this happens in the breast, it occasions great difficulty of breathing. To discharge this blood, if the wound be in the lower part of the breast, push back the lungs with a probe, that the blood may pass out ; if the wound is in the upper part of the breast, an opening must be made at the most depending part, allowing the other to close. But, until the hæmorrhage appears to have ceased, which may be judged of by the strength and equality of the pulse, and the warmth of the patient's extremities, any operation will be useless. When the opening is

made, the expulsion of the matter is assisted by the efforts of respiration. In these cases the patient must be kept still, and opium given if a cough attends. If blood is poured into the belly, there will soon be laborious breathing, anxiety, and intermitting pulse, &c. If the discharge of blood is small, the patient sometimes recovers, but, if considerable, it generally proves fatal.

When a nerve is wounded, a variety of alarming symptoms comes on in proportion to the tenderness of the part it is attached to, and the peculiar irritability of the constitution. When the pain is extreme, it sometimes is relieved only by dividing the nerve. This accident is soon discovered by the sharp ichor which distils from the part, and its excoriating the circumjacent parts. When a tendon is wounded, the same symptoms do not follow as when a nerve is injured. Swelling occurs, though not suddenly, advancing gradually with the inflammation. The most common applications to wounded nerves and tendons have been of the spirituous sort, such as the *ol. tereb. &c.* but they are productive of the worst symptoms. Instead of these, put the limb into the easiest position, keep the wounded part free from cold air, avoid spirituous and hot applications, and in their stead apply warm poultices, having first covered the wound with lint; or, instead of the poultice, cloths may be applied after dipping them in warm brandy and vinegar mixed in equal parts. Fomentations may be used before the application of the poultice, if inflammation attends, or seems to be approaching; or if the case admits of it, the part may be soaked in warm water.

Wounds in the joints, when they are inflicted with cutting instruments, or with heavy weapons falling on them, are attended with danger. Though the wound is small, its consequences are often grievous, from irritation, from the admission of the air, from the loss of synovia, &c. Much depends on the habit. From a large wound in a joint, caused by a fracture, nothing remarkable has followed; yet fatal consequences have been the result of a small one in other instances. However favourable appearances may be, a guarded prognostic should always be given. Penetrating wounds of the joints almost always are dangerous. A mere incised wound into a joint, from letting in air and injuring the ligamentous parts, has often proved fatal. The two great consequences to be avoided in wounds of

the joints are inflammation and pain; the first is to be attempted by bleeding, and pursuing the antiphlogistic plan; the latter, by the position of the limb and by opiates. The most relaxed position of the limb is the best. If no tumefaction comes on, emollient applications are not wanted; but if tumefaction, tension, &c. appear, immediately apply emollients. There is a symptomatic fever generally attendant, exclusive of any other circumstances, and this is sometimes attended with such a discharge as to reduce the patient greatly.

“When horses happen to be wounded on the joints, (says Gibson) especially when they break their knees by falling down, or when they cut or over-reach; in all such cases a pledget laid over the wound, spread with common digestive, and bound on with a roller of broad tape or list, will seldom fail of a speedy cure, unless a horse also have the grease, and then the case must be treated as such. If any small abscesses be formed under the skin, these may be opened by incision, in order that no lodgment may be left for the matter. But in the knee, and all the other joints, care must be taken to prevent inflammation, or to abate it if already begun, by the use of proper fomentations or poultices. These effects, however, are more frequent in punctured wounds, that have been caused by thorns or small splinters, than in wounds that are larger. Horses are sometimes in very great pain with punctures on their knees, hocks, or pasterns, and sometimes with contused wounds that have been apparently inconsiderable, and without the least sign of inflammation. But these, though in themselves somewhat dangerous, are generally relieved by the timely use of emollient fomentations and astringent remedies.”

The same writer directs the manner in which fomentations are to be applied to horses. He advises the making so much at a time scalding hot as is necessary for once fomenting, wringing out woollen cloths in the liquor as dry as possible, and applying them five or six times alternately one after another, as often as they begin to cool, which may be done morning and evening, or oftener, till the end is answered. Used in this manner, they give ease, abate inflammation, greatly increase perspiration, and contribute to cleanliness. Gibson asserts that the least appearance of a mild suppuration that is observed on the use of fomentations in wounds of the joints or membranes, indi-

states that the danger is generally over ; for, though the running from wounds in those parts, is usually small in quantity, unless from long continuance, this small discharge in a sound constitutioned horse, he says, gives as speedy a relief as a profuse running from parts of a different texture "I can, therefore, (says he) recommend this method from frequent experience, as the most successful in all contused wounds or punctures upon the joints, or in the tendons, or the coats of the blood vessels, especially when the neck or the plate-vein happens to swell after bleeding, and for rowels, when they have a disposition to gangrene ; and in all cases, where a mortification is threatened." He justly reprobates the common method of treating the latter case, which is, "when a substance grows on the neck by festering after bleeding, and want of a sufficient vent for the matter, to put in a caustic of blue vitriol, and sometimes a little corrosive sublimate, or arsenic, which, with the falling out of the eschar, makes a cure only with the loss of the vein."

There yet remains to be considered, a species of wounds requiring a peculiar management, from the variety of extraordinary circumstances that may attend them ; we mean *gun-shot* wounds. These, when they take place in horses, require a treatment almost exactly similar to the same kind of wounds in the human subject, since there can exist no other difference than what arises from the stronger powers of restoration in the former.

Gun-shot wounds can be considered in no other light than contused wounds. In those made by a musket or pistol ball, the most immediate considerations are to extract the ball, or any other extraneous body which may have lodged in the wounded part, and to stop the hæmorrhage, if there be an effusion of blood from the rupture of some considerable artery.

It is frequently necessary to enlarge the wound, in order to extract the ball ; and if it has gone quite through (provided the situation of the part wounded will admit of its being done with safety), the wound is to be laid freely open through its whole length ; by which means, any extraneous body will be more readily removed, and the cure facilitated.

In order to get at the ball, or any other foreign matter, probing is to be used as sparingly as possible ; and this must evidently appear to any one who will only consider the nature of the symptoms attendant on penetrating wounds of the

breast or belly, either from a bullet or sharp instrument ; the thrusting in a probe to parts under such circumstances, being unavoidably a fresh stab on every repetition of such practice. If probing be necessary, the finger should be preferred as the best and truest probe, where it can be used ; where it cannot, a bougie may answer the purpose.

If a ball, or any other foreign body, happens to be lodged near the orifice, or can be perceived by the finger to lie under the skin, though at some distance from the mouth of the wound, we should cut down to it, and take it out ; but when it is sunk deep, and lies absolutely beyond the reach of the finger, it must appear evident, upon the least reflection, that thrusting first a long probe in quest of the bullet, and then, as has been practised likewise, a longer pair of forceps, either with or without teeth, into a wound of that kind, though with a sort of certainty to extract it, must either contuse, or irritate and inflame, the parts to a greater degree ; and, consequently, do as much, or more, mischief than the ball did at first by forcing its passage such a length of way. And should they, at the same time, lay hold of any considerable artery or nerve along with the ball (which can scarcely fail of being the case), what hurtful consequences would attend such a proceeding ! Nor would attempts of this sort be less injurious, in case a bullet should happen to be lodged in the cavity of the belly or breast. Such attempts are the less necessary, because a great number of instances have occurred, where balls have quietly lodged in several parts of the body, till, after many years, they worked themselves a passage towards the surface, and were very easily extracted, and many where balls have been entirely left behind without any ill consequence.

In case the wound be occasioned by a musket or pistol shot, and of course but small, it will be deemed necessary to dilate it without delay, provided the nature of the part will admit of this with safety ; for in wounds near a joint, or in very membranous or tendinous parts, the knife, as well as forceps, should be put under some restraint ; nor should any more opening be made than what is absolutely requisite for the free discharge of the matter lodged within.

Where the wounded animal has not suffered any great loss of blood (and this is generally the case), it will be advisable

to open a vein immediately, and take from it a large quantity of blood; and to repeat bleeding, as circumstances may require, the second, and even the third, day. Repeated bleedings in the beginning draw after them many advantages; they prevent a good deal of pain and inflammation, lessen any feverish assaults, forward the digestion, and seldom fail to obviate imposthumations, and a long train of complicated symptoms, which are wont, otherwise, to interrupt the cure, miserably harass the poor patient, and too often endanger his life. Even where the feverish symptoms run high, and there is almost a certainty that matter is forming, bleeding, in that state, is very frequently of great advantage.

If it so happen that a gun-shot wound has penetrated any of the large joints, and, in passing through them, fractured the ends of the bones, it will then be found for the most part impossible, let the skill or abilities of the surgeon be ever so great, to preserve both the life and limb of the patient. The reason of this is, that the access of air to the cavity of the joint excites such a violent inflammation as must certainly end in gangrene; and, therefore, for the most part, it will be proper, as soon as possible, to destroy the horse.

Gibson's treatment of gun-shot wounds, though more humane and judicious than was the fashion of his time, will not wholly bear repetition. His advice to pour in spirits of wine, and to introduce *tents* dipped in turpentine, honey, and and tincture of myrrh, would, by no means, be acceptable to the enlightened veterinarian of the present day. The following observations of that respectable writer, however, are rather less at variance with existing opinions.

"Where a ball (says he) has penetrated quite through any part, both orifices must be kept open till the wound is filled up with new flesh, and no bad symptoms remain, as pain, swelling, or inflammation, which, in those gun-shot wounds that enter the bones as well as the flesh, would denote the existence either of extraneous matter or of splinters, which must be removed by gradually enlarging the most convenient orifice.

But in most internal wounds this is unnecessary, because the bullet, or whatever else inflicts the wound, can seldom be brought out by the same way it entered. I have known leaden bullets lie many years in men, especially in the abdomen, without any great pain or danger, and those that have gone deep in the flesh, and beyond reach, make sometimes their way afterwards from places where they could never be expected to appear. Many extraordinary instances of this kind are related in books of surgery, and in the transactions of the learned in several parts of Europe.

I have known bullets pierce through both flesh and bones in men, making a round smooth passage, like an auger-hole, and been as easy of cure as a flesh wound, except when they have penetrated or grazed on the joints. In these cases, horses may be rendered useless, even though the wound be cured. If the bones are splintered the case will always be dangerous, especially if the practitioner has not had experience to know both the time and manner how they are to be treated; for loose splinters should not be suffered to remain where their continuance would endanger gangrene, nor be removed while their removal would create an excess of pain. But in such circumstances emollient poultices are the most likely to prepare them for separation, so as they may at length be brought away with little or no inconvenience, only by the use of a common digestive. If a bullet, a splinter, or any other extraneous body that has been driven a great way downwards from its entrance, can be felt on the outside, a counter opening in that case will be necessary, and this both facilitates the cure, and renders it expeditious. But in all such operations, regard must be had to the situation of the part, to avoid as much as possible, wounding the nerves, tendons, or larger blood vessels."

He observes, very justly, that in dressing gun-shot wounds, it is necessary to avoid all unctuous applications, which encourage the growth of fungous flesh. He advises us to dress the wound with turpentine, mixed with honey or the yolks of eggs, or with honey and turpentine.

Y

YELLOWs. See JAUNDICE.

The new Game Bill having passed into a law since the completion of the Sportsman's Cyclopaedia, it is here attached in the form of an

APPENDIX.

The Statute 1 and 2 William IV. chap. 32 passed October 5th, 1831, having recited "that it is expedient to repeal the following statutes, or so much thereof as is expedient; viz:—

"Statute 13 of Richard II. sect. 1, chap. 13, as far as it relates to persons having or keeping any greyhound, hound, or other dog, to hunt; or using ferrets, pegs, nets, harepipes, cords, or other engines, to take or destroy hares, conies, or game.

"Statute 22 of Edward IV. chap. 6, as far as it relates to having any mark or game of swans.

"Stat. 11 Hen. VII. c. 17.

"Stat. 19 Hen. VII. c. 11.

"Stat. 14 and 15 Hen. VIII. c. 10.

"Stat. 25 Hen. VIII. c. 11.

"Stat. 33 Hen. VIII. c. 6.

"Stat. 23 Eliz. c. 10.

"Stat. 2 James I. c. 27.

"Stat. 7 James I. c. 11.

"Stat. 22 and 23 Charles II. c. 25.

"Stat. 4 William and Mary, c. 23.

"Stat. 5 Anne, c. 14.

"Stat. 9 Anne, c. 25.

"Stat. 8 Geo. I. c. 19.

"Stat. 10 Geo. II. c. 32.

"Stat. 26 Geo. II. c. 2.

"Stat. 28 Geo. II. c. 12.

"Stat. 2 Geo. III. c. 19.

"Stat. 13 Geo. III. c. 55.

"Stat. 13 Geo. III. c. 80.

"Stat. 39 Geo. III. c. 34.

"Stat. 43 Geo. III. c. 112.

"Stat. 48 Geo. III. c. 93.

"Stat. 50 Geo. III. c. 67.

"Stat. 58 Geo. III. c. 75.

"Stat. 59 Geo. III. c. 102.

"And all statutes, continuing or perpetuating any of the aforesaid statutes or parts thereof, so far as relates to the continuing or perpetuating of the same respectively."

The preamble of the Act then enacts the following provisions, in lieu of those of the repealed statutes.

The second section of the Act enacts, that the word "game" shall include hares, pheasants, partridges, grouse, heath or moor game, black game, and bustards.

By sect. 3, persons killing or taking game, or using any dog, gun, net, or other engine or instrument for the purpose, on Sunday or Christmas-day, shall forfeit any sum not exceeding £5; and persons kil-

ling or taking any partridge between February the 1st and September the 1st; or any pheasant between February the 1st and October the 1st; or any black game, (except in Somerset or Devon, or in the New Forest, Southampton) between December the 10th and August 20th; or in Somerset, Devon, or the New Forest, between December the 10th and September the 1st; or any grouse between December the 10th and August the 12th; or any bustard between March the 1st and September the 1st, shall forfeit for every head of game so killed or taken any sum not exceeding £1, with costs of conviction. And persons putting, or causing to be put, with intent to destroy or injure any game, any poison or poisonous ingredient, on any ground, whether open or enclosed, where game usually resort, or in any highway, shall forfeit any sum not exceeding £10, with costs of conviction.

Section 4 enacts, that if any person, licensed to deal in game by this act, shall buy or sell, or knowingly have in his house, or possession, or controul, any bird of game after the expiration of ten days, (one inclusive and the other exclusive) from the respective days in which it is unlawful to kill or take such birds of game; or if any person, not being licensed to deal in game, shall buy or sell any bird of game after the expiration of ten days (one inclusive and the other exclusive) from the respective days on which it is unlawful to kill or take the same, or shall knowingly have in his house, possession, or controul, any bird of game (except birds of game kept in a mew or breeding place) after the expiration of forty days (one inclusive and the other exclusive) from the respective days on which it is unlawful to kill or take the same, shall forfeit for every head of game so bought or sold, or found in his house, possession, or controul, any sum not exceeding £1, with costs of conviction.

But the 5th section provides, that this Act shall not affect or alter the existing laws respecting certificates for taking or killing any game whatever, or any woodcock, snipe, quail, or landrail, or any conies, but that such annual game certificates shall be taken out as before. And by the 23rd section, if any person shall kill or take any game, or use any dog, gun, net, or other engine or instrument,

for the purpose of searching for or killing or taking game, without a certificate, he shall forfeit for every offence any sum not exceeding £5, with costs of conviction: and such penalty imposed by this Act shall be deemed a cumulative penalty to any penalty to which the person so convicted may be liable under any statute or statutes relating to game certificates.

By section 6, persons obtaining annual game certificates may kill and take game, liable to any trespass committed by them in search or pursuit of game. But no game certificate on which a less duty than £3 13s. 6d. has been paid shall authorize any gamekeeper to kill or take any game, or to use any dog, gun, or net, or other instrument, for the purpose of killing or taking game, except within the limits included in his appointment as gamekeeper; but that if any such gamekeeper shall kill or take game beyond such limits, he may be proceeded against as if he had no certificate.

The 7th section provides, that in all cases where any person shall occupy any land under any lease or agreement made before the passing of this Act, except in the cases hereinafter excepted, the lessor or landlord shall have the right of entering upon such land, or of authorizing any other person or persons who shall have obtained an annual game certificate to enter upon such land for the purpose of killing or taking game thereon; and no person occupying any land under any lease or agreement, either for life or for years, made previously to the passing of this Act, shall have the right to kill or take the game on such land, except where the right of killing the game upon such land has been expressly granted or allowed to such person by such lease or agreement; or except where, upon the original granting or renewal of such lease or agreement, a fine or fines have been taken; or except where, in a case of a term for years, such lease or agreement has been made for a term exceeding twenty-one years.

But the 8th section provides, that nothing in this Act shall authorize any person seized or possessed of, or holding any land, to kill or take the game, or to permit any other person to do so, in any case where by deed, grant, lease, or any written or parol demise or contract, a right of entry upon such land for the purpose of killing or taking the game, has been or shall be reserved or retained by, or given or allowed to any grantor, lessor, land-

lord, or other person whatever; and that nothing in this Act shall defeat or diminish any reservation, exception, covenant, or agreement already contained in any private Act of Parliament, deed, or other writing, relating to the game upon any land; or in any manner prejudice the rights of any lord or owner of any forest, chase, or warren, or of any lord of any reputed manor, lordship, or royalty, or of any steward of the crown of any manor, lordship, or royalty appertaining to the king.

And the 9th section provides, that nothing in this Act shall in any way alter or affect any of the king's forest rights, or of any person entitled to any right or privilege under them, or the rights or privileges of any person holding under any grants or purchases from the crown.

The 10th section also provides, that the Act shall not give to any owner of cattle gates, or rights of common, any interest or privilege which he did not possess before the passing of this Act; but the rights and privileges in such wastes or commons shall remain as they did before the passing of this Act.

The 12th section enacts, that where the lessor or landlord has reserved to himself the right of killing game upon any land, he may authorize other persons, having obtained annual game certificates, to pursue and kill game thereon.

But where the right of killing the game upon any land is, by this Act, given to any lessor or landlord, in exclusion of the right of the occupier of such land, or where such exclusive right has been, or shall be, specially reserved by or granted to, or belongs to the lessor, landlord, or any other person than the occupier, then, if the occupier shall pursue, kill, or take any game upon such land, or give permission to any other person so to do, without the authority of the lessor, landlord, or other person having the right of killing game on such land, such occupier shall forfeit, for every head of game so killed or taken, any sum not exceeding £2, with costs of conviction. Sect. 12.

By section 13, lords of manors, &c. may appoint gamekeepers within the same, and authorize them to seize and take all dogs, nets, and other engines and instruments for the killing or taking of game from uncertificated persons within the limits of such manors.

By section 14, lords of manors, &c. may grant such deputations to persons acting as gamekeepers, or employed in any other capacity by other persons.

The 15th section empowers persons possessed of lands in Wales of the clear annual value of £500, whereof he shall be seized in fee or as of freehold, or to which he shall otherwise be beneficially entitled in his own right, to appoint gamekeepers : but the 16th section requires all appointments of gamekeepers to be registered with the clerk of the peace.

The 17th section enacts, that every person who shall have obtained an annual game certificate may sell game to persons licensed to deal in game according to this Act; but that no gamekeeper on whose certificate a less duty than £3 13s 6d has been paid shall sell any game, except on the account and with the written authority of his employer; and that if he does he may be proceeded against as if he had not had a game certificate.

By the 18th section, justices of the peace shall hold special sessions in the present year, between the 15th and the 30th days of October; and in every succeeding year in the month of July, for granting licenses to deal in game to such persons as are householders or keepers of shops or stalls, and not being innkeepers or victuallers, or licensed to sell beer by retail, or being owners, guards, or drivers of mail coaches, or other vehicles employed in the conveyance of the mails of letters, or of stage coaches, stage waggons, vans, or other public conveyances, or being carriers or higglers, or being in the employment of any such persons; which licenses shall empower the persons to whom they are granted to buy game at any place from any person who may lawfully sell game by virtue of this Act; and also to sell the same at one house, shop, or stall only, kept by the licensed person; provided that every person, while so licensed, shall affix to some part of the outside of the front of his house, shop, or stall, and shall there keep a board having thereon his christian and surname, and the words "licensed to deal in game." Licenses granted during the present year to continue in force to July 15, 1832; but such as are granted in any succeeding year, to continue in force for the period of one year next after the granting thereof. But by section 26, innkeepers and tavern-keepers may, without any license, sell game for consumption in their own houses, such game having been procured from some person licensed to deal in game by virtue of this Act. And, by section 21, persons being in partnership, and carrying on their business at one house, shop,

or stall only, require but one license. Licenses to become void on conviction of any offence against this Act. Sect. 22.

Persons licensed to deal in game under this Act must annually, and during the continuance of their license, obtain a certificate on payment of a duty of £2 to the collector or collectors of the assessed taxes, from whom they shall receive a receipt on payment of one shilling; which receipt they shall get exchanged for a certificate under this Act, in like manner as receipts for the duty in respect of killing game are exchanged for game certificates; and if any person, obtaining a license under this Act shall purchase or sell, or otherwise deal in game as a licensed dealer, before he shall obtain a certificate in exchange for such receipt, he shall, for every offence, forfeit £20.

The collectors are to make out lists of persons who have obtained licenses to deal in game, and are to produce the same to all persons making application at seasonable hours to inspect them, on payment of one shilling. Sect. 20.

By sec. 25, if any person not having obtained a game certificate (except such person be licensed to deal in game according to this Act) shall sell, or offer for sale, any game to any person whatever; or if any person authorized to sell game under this act, shall sell or offer for sale any game to any person whatever, except a person licensed to deal in game, he shall forfeit for every head of game so sold or offered for sale, any sum not exceeding £2, with costs of conviction.

And if any person, not being licensed to deal in game according to this Act, shall buy any game from any person whatever, except from a person licensed to deal in game according to this Act, or *bonâ fide* from a person affixing to the outside of the front of his house, shop, or stall, a board purporting to be the board of a person licensed to deal in game, he shall for every head of game so bought forfeit any sum not exceeding £5. with costs of conviction. Sect. 27.

And if any person being licensed to deal in game according to this Act, shall buy or obtain any game from any person not authorized to sell game for want of a game certificate, or for want of a license to deal in game; or if any person, being licensed to deal in game according to this Act, sell or offer for sale any game at his house, shop, or stall, without such board as aforesaid being affixed to some part of the outside

of the front of such house, shop, or stall, at the time of such selling or offering for sale, or shall affix, or cause to be affixed, such board to more than one house, shop, or stall, or shall sell any game at any place other than his house, shop, or stall, where such board shall have been affixed; or if any person not being licensed to deal in game according to this Act shall assume or pretend, by affixing such board, or by exhibiting any certificate, or by any other device or pretence, to be a person licensed to deal in game, he shall for every offence, forfeit £10, with costs. Sec. 28. But the buying and selling of game by persons employed on the behalf of any licensed dealer in game, and acting in the usual course of his employment, and upon the premises where such dealing is carried on, is a lawful buying and selling in cases where the same would have been lawful if transacted by the licensed dealer himself. And licensed dealers may sell any game sent to them to be sold on account of other licensed dealers. Sec. 29.

The 30th sec. reciting, that, as after the commencement of this Act game will become an article which may be legally bought and sold, and that it is therefore just and reasonable to provide that summary means should be provided for protecting it from trespassers; enacts, that any person committing trespasses, by entering or being, in the daytime upon any land, in search or pursuit of game, woodcocks, &c. shall forfeit any sum not exceeding £2. with costs of conviction; and that if any persons, to the number of five or more together, commit any trespass, by entering in the daytime, upon any land in search of game, &c. each of them forfeit not less than £5, with costs of conviction; the leave and license of the occupier of the land so trespassed upon shall not be a sufficient defence in any case where the landlord, lessor, or other person shall have the right of killing game upon such land by virtue of any reservation or otherwise; but that such landlord, &c. shall, for the purpose of prosecuting for each of such two offences, be deemed to be the legal occupier of the land; and that the lord or steward of the crown of any manor, lordship, or royalty, shall be deemed to be the legal occupier of the land of the wastes or common within such manor, lordship, &c.

The 31st sec. enacts, that if any person shall be found on any land, or upon any of the crown forests, parks, chases, or warrens in the daytime, in search or pur-

suit of game, or woodcocks, snipes, quails, landrails, or conies, any person having the right of killing the game upon such land, by virtue of any reservation or otherwise as is provided for by this Act, or the occupier of the land (whether there shall or shall not be any such right by reservation or otherwise), or any gamekeeper or servant of either of them, or any person authorized by either of them, or for the warden, ranger, verderer, under-keeper, or other officer of such forest, &c. may require the person so found forthwith to quit the land whereon he shall be so found, and also to tell his name and place of abode; and if such person, after being so required, refuse to tell his real name and place of abode; or if he give a description of his place of abode of so general a nature as to be illusory, for the purpose of discovery, the party so requiring his address, or any person acting by his order and in his aid, may apprehend him, and convey him, as soon as conveniently may be before a magistrate; and the offender (whether so apprehended or not, shall forfeit any sum not exceeding £5, with costs of conviction. But no person so apprehended shall, on any pretence whatever, be detained for a longer period than twelve hours from the time of his apprehension until brought before a magistrate; and if he cannot, on account of the absence or distance of the residence of the magistrate, or on account of any other reasonable cause, be brought before a magistrate within such twelve hours, then he shall be discharged; but may, nevertheless, be proceeded against for the offence by summons or warrant, according to the provisions hereinafter mentioned, as if no apprehension had taken place.

By the 32nd sec. if any persons, to the number of five or more together, shall be found upon any land, or in any of the crown forests, parks, chases or warrens, in the day time, in search or pursuit of game, or woodcocks, snipes, quails, landrails, or conies, any of them being armed with a gun, and any of them by violence, intimidation, or menace, preventing, or endeavouring to prevent any person authorized as hereinbefore mentioned from approaching them for the purpose of requiring them, or any of them, to quit the land whereon they shall be so found, or to tell their or his name and place of abode; every person so offending, and every person then and there aiding or abetting such offender, shall forfeit for every offence any sum not exceeding £5,

with costs of conviction; which penalty shall be in addition to and independent of any other penalty to which any such person shall be liable for any offence against this Act.

And by sec. 39, if any person commit any trespass, by entering or being, in the daytime, upon any crown forests, parks, chases, or warrens, in search or pursuit of game, without being first duly authorized, he forfeits any sum not exceeding £2, with costs of conviction.

But the 35th sec. enacts, that the aforesaid provisions against trespassers and persons found on any land shall not extend to any person hunting or coursing upon any lands with hounds or greyhounds, and being in fresh pursuit of any deer, hare, or fox, already started upon any other land; nor to any person *bond fide* claiming, and exercising any right or reputed right of free warren or free chase, nor to any gamekeeper lawfully appointed within the limits of any free warren or free chase; nor to any lord or any steward of the crown of any manor, lordship, or royalty; nor to any gamekeeper lawfully appointed by such lord or steward within the limits of any manor, &c.

The 36th section enacts, that when any person shall be found by day or by night upon any land, or in any of the crown forests, parks, chases, or warrens, in search or pursuit of game, and then and there having in his possession any game which shall appear to have been recently killed, any person having a right of killing the game upon such land, by virtue of any reservation or otherwise, as before provided for, or the occupier of the land (whether there shall or shall not be such right by reservation or otherwise), or any gamekeeper or servant of either of them, or any officer, as aforesaid of any forest,

&c. or any person acting by the order and in aid of any of the said several persons, may demand from the person so found, the game which may be in his possession; and in case he shall not immediately deliver up the same, may seize and take it from him, for the use of the person entitled to it.

The 34th sec. defines what shall be deemed day-time, for the purposes of the act; namely, from the beginning of the last hour before sunrise to the expiration of the first hour after sunset.

The 24th sec. provides, that if any person not having the right of killing game upon any land, nor having permission from the person having the right, wilfully take out of the nest or destroy in the nest upon the land the eggs of any bird of game, or of any swan, wild duck, teal, or widgeon, or knowingly have in his house, shop, possession, or controul any eggs so taken, he shall forfeit for every egg so taken or destroyed, or found in his possession, any sum not exceeding 5s. with costs of conviction.

The remaining sections of the Act (viz. from 37 to 47 inclusive) provide for the application of the penalties for offences against the Act, the time of the payment thereof, and the periods of imprisonment for non-payment; the form of conviction; the power of summoning witnesses; the time for proceedings, and the mode of enforcing appearance; the appeal, and the venue and proceedings. The 46th section provides, that the Act shall not preclude actions for trespass; but that, where any proceedings have been instituted under this Act in respect of any trespass, no action at law shall be maintainable for the same trespass. And the 48th section, that the Act shall not extend to Scotland or Ireland.

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